

Numismatic notes & monographs.

New York : American Numismatic Society, 1920-

[http://hdl.handle.net/2027/uc1.\\$b460941](http://hdl.handle.net/2027/uc1.$b460941)

HathiTrust



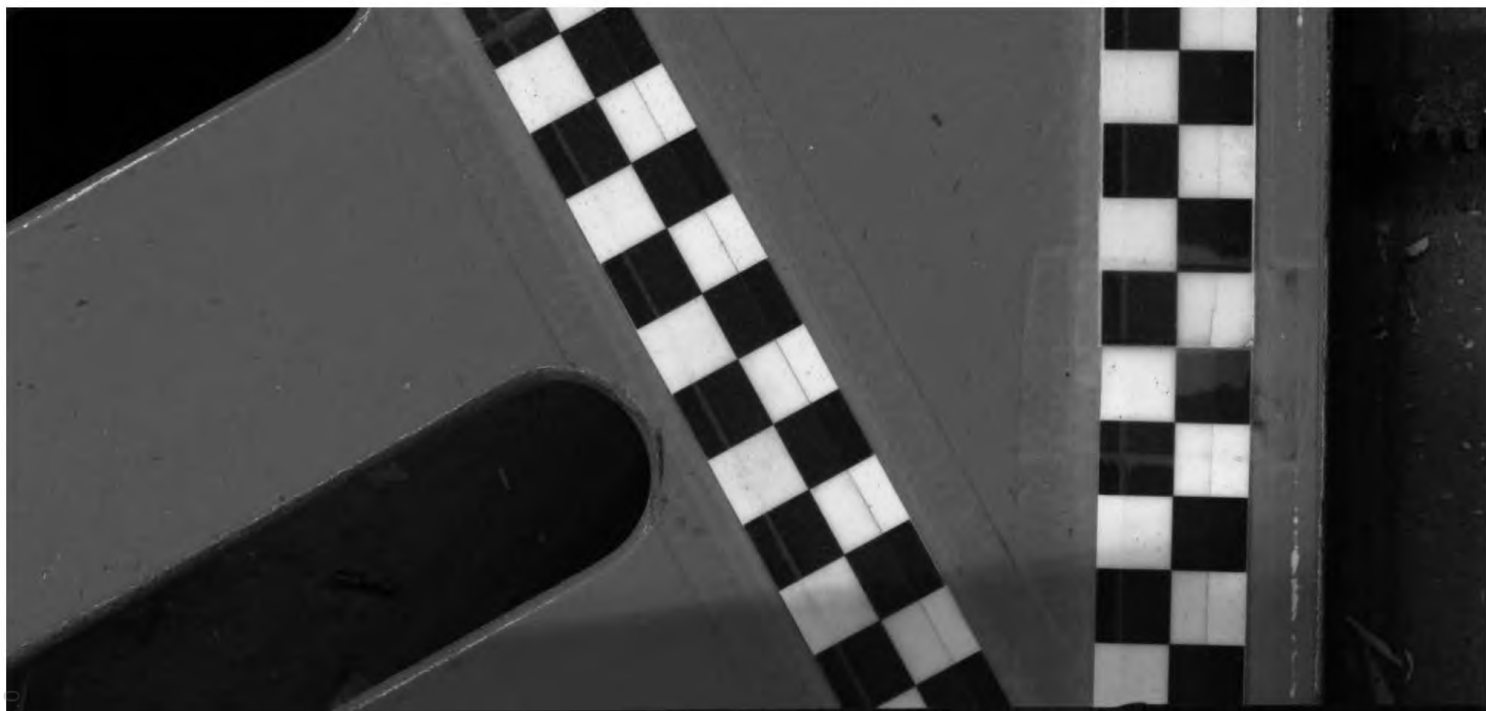
www.hathitrust.org

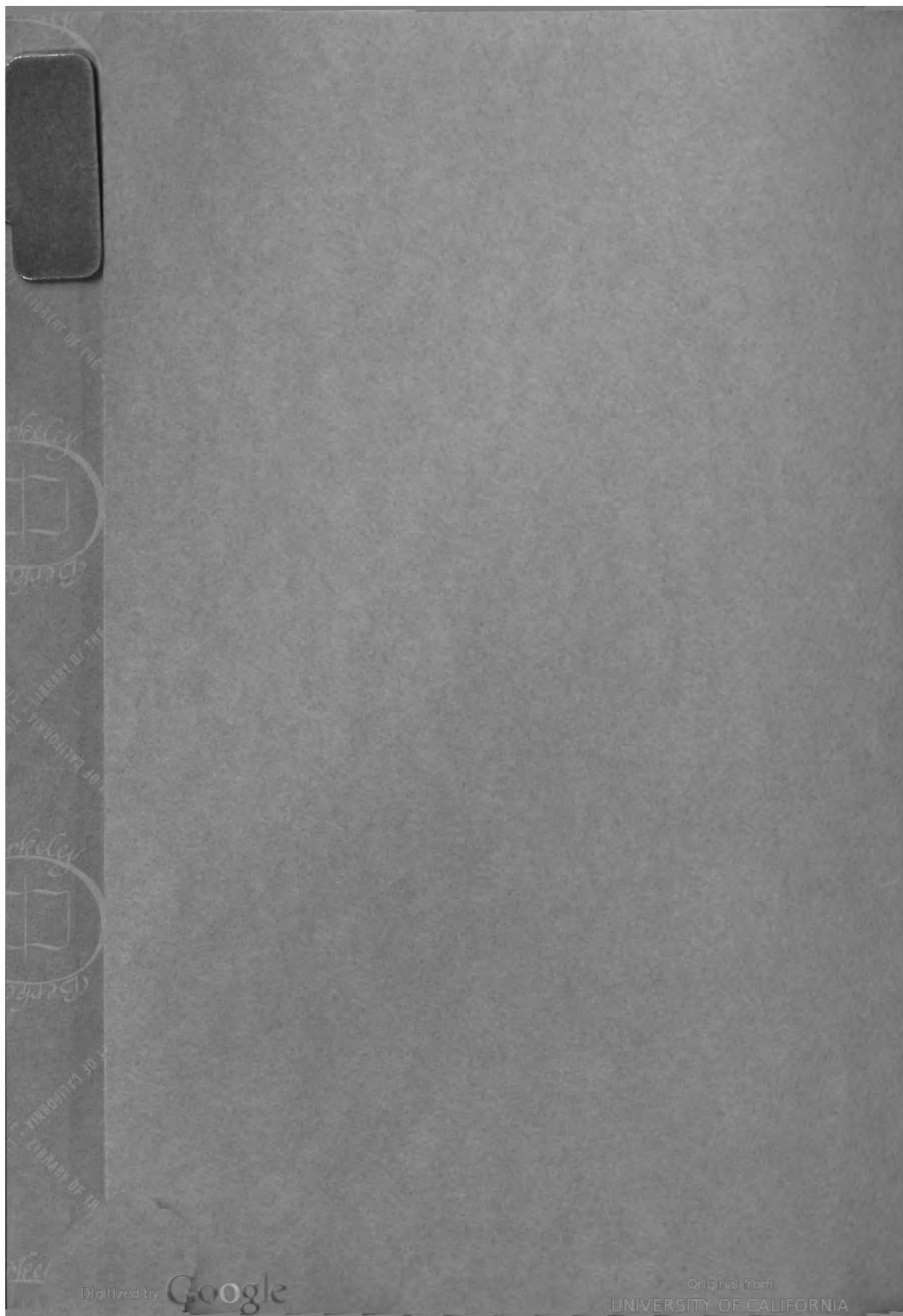
Creative Commons Attribution-NonCommercial-ShareAlike

http://www.hathitrust.org/access_use#cc-by-nc-sa-4.0

This work is protected by copyright law (which includes certain exceptions to the rights of the copyright holder that users may make, such as fair use where applicable under U.S. law), but made available under a Creative Commons Attribution-NonCommercial-ShareAlike license. You must attribute this work in the manner specified by the author or licensor (but not in any way that suggests that they endorse you or your use of the work). This work may be copied, distributed, displayed, and performed - and derivative works based upon it - but for non-commercial purposes only (if you are unsure where a use is non-commercial, contact the rights holder for clarification). If you alter, transform, or build upon this work, you may distribute the resulting work only under the same or similar license to this one. Please check the terms of the specific Creative Commons license as indicated at the item level. For details, see the full license deed at <http://creativecommons.org/licenses/by-nc-sa/4.0>.

PAGE NOT AVAILABLE



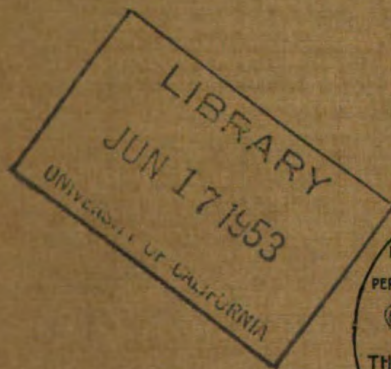


NUMISMATIC NOTES AND MONOGRAPHS

No. 127

COUNTERFEITING IN COLONIAL NEW YORK

By KENNETH SCOTT



P
CJ
15
A55
no. 127-131

THE AMERICAN NUMISMATIC SOCIETY

Broadway at 156th Street, New York

1953

THE AMERICAN NUMISMATIC SOCIETY

Founded 1858 — Incorporated 1865

BROADWAY BETWEEN 155TH & 156TH STREETS
NEW YORK 32, N. Y.

PURPOSES: The Society was founded for the collection and preservation of coins and medals and for the investigation of their history and other subjects connected therewith.

MEMBERSHIP: Applications for membership are welcomed from all interested in numismatics. Inquiries regarding membership should be addressed to the Secretary of the Society.

DUES: The annual dues for an Associate Membership are \$7.50. Issues of the *Notes and Monographs*, *Museum Notes*, *Hispanic Numismatic Series*, and *Numismatic Literature* are distributed to all members.

PUBLICATIONS: The *Numismatic Notes and Monographs* consist of separately issued papers, each on a single topic, of which two to four numbers appear each year. *The American Numismatic Society Museum Notes* is a publication, irregular in appearance, consisting of brief notes and papers, principally on items in the Society's collections. *Numismatic Literature* is a quarterly listing current numismatic publications with abstracts of their content. *Numismatic Studies* is a series which accommodates works of full book length. The *Hispanic Numismatic Series*, published in co-operation with the Hispanic Society of America, consists of publications devoted to the coinage of the Iberian Peninsula, and is based on the collections of the Hispanic Society.

MUSEUM: The Society maintains a museum located in uptown Manhattan, New York City, which houses its offices, collections and library. Collections embrace coins of all periods from their inception to modern times, medals and decorations. Selections from its cabinets are on display in an exhibition. The library, consisting of about 12,000 volumes, covers all branches of numismatics.

The Museum is open to Members and the public on Tuesdays, Wednesdays, Thursdays, Fridays and Saturdays. It is closed on Sundays and Mondays and the following holidays: New Year's Day, Lincoln's Birthday, Washington's Birthday, Memorial Day, Independence Day, Election Day, Thanksgiving Day and Christmas Day. The hours of the Library are from 9 A.M. to 5 P.M. The public exhibition is open from 2 to 5 P.M.

NUMISMATIC NOTES AND MONOGRAPHS

Number 127

NUMISMATIC NOTES AND MONOGRAPHS

is devoted to essays and treatises on subjects relating
to coins, paper money, medals and decorations.

PUBLICATION COMMITTEE

A. CARSON SIMPSON, *Chairman*

ALFRED R. BELLINGER

AGNES BALDWIN BRETT

THOMAS O. MABBOTT

SAWYER MCA. MOSSER, *Editor*

Counterfeiting in Colonial New York

BY
KENNETH SCOTT



THE AMERICAN NUMISMATIC SOCIETY
BROADWAY AT 156TH STREET
NEW YORK
1953

**ALL RIGHTS RESERVED BY
THE AMERICAN NUMISMATIC SOCIETY**

**PRINTED IN GERMANY
AT J. J. AUGUSTIN • GLÜCKSTADT**

CJ15

A55

no. 127-131

To My Friend

WALTER CONSUELO LANGSAM

374

CONTENTS

I. THE SEVENTEENTH CENTURY	I
II. THE EARLY EIGHTEENTH CENTURY	
III. THE YEARS 1711-1726	15
IV. THE YEARS 1727-1735	26
V. THE YEARS 1736-1744	39
VI. THE OBLONG GANG	58
VII. THE YEARS 1745-1752	68
VIII. THE PERIOD FROM 1753 TO JUNE, 1761	81
IX. THE COUNTERFEIT BRITISH HALFPENCE (1753-1754)	102
X. THE PERIOD FROM JUNE, 1761, TO 1765	110
XI. THE YEARS 1766-1769	121
XII. THE YEARS 1770-1772	137
XIII. THE ALBANY COUNTY GANG	151
XIV. THE FORD GANG	174
XV. THE CLOSE OF THE COLONIAL PERIOD	188
XVI. CONCLUSION	196
APPENDIX A. MANUSCRIPT SOURCES	208
INDICES	210

FOREWORD

The writing of this book had been made possible through the help of the staffs of the Library of The New-York Historical Society, of the Library of the New York Bar Association, of the Reserve Room of the New York Public Library, of the Adriance Memorial Library in Poughkeepsie, and of the Manuscript Division of the Library of Congress. The author wishes to express special thanks to Mr. Maxwell Volins, Chief Record Clerk of the New York County Clerk's Office, to Miss Edna Jacobsen, Chief of the Manuscripts Division of the New York State Library, to Mr. James A. Murphy, Law Librarian of the Court of General Sessions of the County of New York, to Mrs. Louise Heinze, Librarian of the Wagner Lutheran College Library, to Professor David B. Tyler of Wagner Lutheran College, to Mr. Wayte Raymond of New York City, and to Mr. J. N. Spiro of Maplewood, New Jersey.

I

THE SEVENTEENTH CENTURY

It has been recently stated that "New York is indisputably the global capital of the counterfeit world,"¹ and even under the rule of the Dutch its earliest currency, wampum,² was being imitated, evidently before 1650, when an ordinance of the director and council of New Netherland, passed on May 30 of that year for the better regulation of the currency, was prefaced by this complaint: "We have by experience and for a long time seen the decline and daily depreciation of the loose Wampum, among which are circulating many without holes and half finished, also some of Stone, Bone, Glass, Muscle shells, yea even of Wood and Broken Beads."³ It is possible that both whites and Indians indulged on the practice, though the Indians may have been the chief or sole counterfeiters of their medium of exchange, as appears to have been the case in Rhode Island at about the same time.⁴

In any event, the colonists in New York were not slow to put out silver pieces in imitation of those issued by the Massachusetts Bay

¹ Lawrence Dwight Smith, *Counterfeiting* (N. Y.: W.W. Norton & Co., Inc., 1944), p. 54.

² The currency in the early period consisted of peltry and wampum; the black beads were reckoned from four to eight beads for a stiver, and one black bead was regarded as worth two white. See John H. Hickcox, *A History of the Bills of Credit or Paper Money issued by New York from 1709 to 1789* (Albany: J. H. Hickcox & Co., 1866), pp. 1-2 and William Graham Sumner, *A History of American Currency* (N.Y.: Henry Holt and Company, 1884), p. 3.

³ E. B. O'Callaghan, *Laws and Ordinances of New Netherland* (Albany: Weed, Parsons & Co., 1868), 115-116.

⁴ Richard LeBaron Bowen, *Rhode Island Colonial Money and its Counterfeiting* (Providence: Society of Colonial Wars, 1942), pp. 4-5, cites an order of the Rhode Island General Court of Elections in May, 1647, concerning the Indians' "false peag string beads" and Roger Williams' assertion that the Indians counterfeited their very black beads with stone and other materials.

Province.⁵ The earliest cases recorded are those of John Burrell and William Shore, of New Jersey, who in 1680 were presented by John Archer, Sheriff of New York City, "for Coyning of ffalse Boston money in or about the beginning of this instant month of May, and for puting it of for Curr^t Coyne wth in the Cytie aforesaid w^{ch} is contrary to the Laws of our Souraign Lord the King."⁶ Burrell, who was committed into safe custody on May 4, 1680, "for bringing false Boston Coyns" into New York and putting them off there,⁷ made a confession and on May 27 was ordered to make restitution and was fined, while Shore was on the same date tried, convicted and ordered to receive thirty lashes.⁸

The "Boston Coyns" were probably the Massachusetts shillings, sixpences, threepences, and twopences known as "Pine Tree" coinage, for the earlier 1652 issue of coins of the denominations of one shilling and of one sixpence had soon been discontinued because they were so readily and so widely clipped.⁹ It is probable that both Burrell and Shore did not actually make the false pieces but only imported them from Massachusetts, where they were being counterfeited, and then circulated them in New York. On December 29, 1693, the governor and council of New York, meeting at Fort James, issued a warrant for the apprehension of passers of counterfeits. It pointed out that divers persons had given very credible information that several false Boston, Spanish and other kinds of money were circulating in New York. It was therefore ordered that any person putting off such coins should at once be carried before the mayor, one of the aldermen, the nearest justice of the peace or lawful magistrate to give a sufficient account "from whence he or they Received the same." In case the account was not satisfactory, the person apprehended was to be

⁵ The earliest Massachusetts coins were issued in 1652. See William Graham Sumner, *op. cit.*, p. 11.

⁶ NY Col. Mss. 29, p. 96.

⁷ Ms. Mins. Mayor's Court, 1677-82, pp. 200 and 202.

⁸ NY Col. Mss. 29, p. 106.

⁹ Richard LeBaron Bowen, *op. cit.*, pp. 5-6.

proceeded against according to law. The warrant was directed to the mayor and aldermen of New York City to be published.¹⁰

Less than two months later, on February 23, 1684, "upon information to ye Governor of som false Coyne in Boston, Spanish moneys not weighty, & Counterfeited by som of ye neighboring Colonies," it was ordered by the governor's council that "a proclamation be drawn & published to prevent it."¹¹ The proclamation, which was dated February 20 and published three days later, was the warrant which had been issued by the governor and council on December 29 of the preceding year.¹²

A deposition made on April 7, 1685, by Captain Jonathan Selleck before the governor and council shows that the amount of clipped Spanish money circulating in New York was considerable. Selleck stated upon oath that he had received from Benjamin Blagge sixteen parcels of clipped money to the value of 290 pieces of eight,¹³ but it is not clear whether Blagge had passed the coin or whether he had obtained it in trade or seized it and turned it over to Selleck.

The next counterfeiter to be mentioned in the province of New York is one John Rush of Philadelphia. In 1683 the Provincial Council of Pennsylvania issued a warrant "to make search ye Shop and Lodging of Isack ye Smith, Humphrey Best and Jno. Rush, doe worke for mettles Coyned or uncoyned, Stamp or unstamp, Iron or Steel only excepted."¹⁴ Although nothing is known of the results of the search, it may be safely assumed that the Council was justified in issuing the search warrant, for Rush's activities later involved him in difficulties with the law. During the winter of 1690/91 Cornelius Jacobs, master of a ship bound for Jamaica, discovered that a passenger, John Rush, was a "false Coyner" and had nine pounds and fifteen shillings in

¹⁰ NY Col. Mss. 34, p. 14.

¹¹ Ms. Mins. Council 5, p. 49.

¹² *Minutes of the Common Council of the City of New York* (N.Y.: Dodd, Mead and Co., 1905) I, p. 126.

¹³ Ms. Mins. Council 5, p. 109.

¹⁴ See Harrold E. Gillingham, *Counterfeiting in Colonial Pennsylvania* (N.Y.: American Numismatic Society, 1939), p. 5.

1*

counterfeit money in a bag, "which he Delivered to Jacobs heaving something over board in Jamaica." Rush was imprisoned on the island during Jacobs' abode there, and, since the crime had not been committed in Jamaica, Jacobs brought back Rush as a prisoner to New York, where Rush admitted that he owned the money but claimed he had it from a certain Edward Coffee of Pennsylvania. Since the crime had probably been committed in that province and since Rush said he had a family there, the Council of the Province of New York wrote to the Governor of Pennsylvania that they were sending him Rush as a prisoner with a copy of Cornelius Jacobs' deposition in order that justice might take place and the truth be better discovered.¹⁵

A warrant issued by the council on the same day commanded that Rush with his bag of counterfeit money be conveyed from constable to constable as far as Elizabethtown in East Jersey. It desired that then the justices of the peace or some of them in that town cause the prisoner to be conveyed to some justices of the peace in West Jersey, who were requested to perform the like service until the prisoner be delivered with his bag of money to the governor or the chief magistrate in Philadelphia, there to be proceeded against according to law.¹⁶ The matter was thus submitted to the "prudence and discretion" of the Pennsylvania authorities.

The next case of counterfeiting involved a merchant of some prominence, Gabriel Ludlow, who was born on November 2, 1663, at Castle Cary, Somerset, England. Ludlow arrived in New York on November 24, 1694, built and owned vessels in the coasting trade and set up a place of business in Queen Street. Three years after his arrival he married Sarah Hanmer, the daughter of the Reverend Joseph Hanmer, Chaplain to the King's forces in the Province of New York, and in 1697 became a vestryman of Trinity Church.¹⁷

¹⁵ NY Col. Mss. 37, p. 173a: a letter dated June, 24, 1691.

¹⁶ NY Col. Mss. 37, p. 137b.

¹⁷ William Seton Gordon, "Gabriel Ludlow and his Descendants," *New York Genealogical and Biographical Record* 50 (1919), pp. 1 ff.

His trouble with the law is told in the minutes of Special Sessions of the Peace which was held in Trinity Church on October 12, 1698. They read as follows:

After the last supreme Court of Judicature of this Province was adjourn'd the Grand Jurors of this City that attended the said Court Recommended to the Justices a Matter that was under Consideration (to witt) that Gabriel Ludlow of this City had offered several Counterfeit Dollars. Whereupon the Justices sent for the said Gabriel Ludlow and Examined him upon the premisses who declared that he had Received att sundry times several parcells of Money from sundry people being a Trader in the Country and that upon his Examination and making up of his Cash he did find seaventy three Dollars which he Imagined were not soo good as those that are current in the Province and that he had not the Confidence to pay them away himself but being acquainted with one Mr. Montagne apprentice with Mr. Wonham told him he was accustomed to Receive and pay great Sums of Money for his Master whereupon he proposed to him that if he would take the said Quantity of Dollars and pay them away he would allow him four pence in each Dollar and accordingly the said Montagne Received the said Dollars from the said Ludlow and offered them accordingly & the Dollars being produced one of them was sent to Alderman Boelen a Goldsmith to tell the Essay of the Mettle of the said Dollars who accordingly did and Reports the said Dollars are made of Aspers¹⁸ melted down which is very little worse than the Currant Dollars. And the said Gabriel Ludlow humbly prays that the Justice will make a favourable Construction on the matter he being a person of unstained Reputation. Whereupon the Justices having duly Considered doe order and adjudge that the said Gabriel Ludlow doe pay good Money to such persons as the said Corrupt Dollars have been Issued unto and that he pay as a fine the Sum of three pounds Currant Money of New Yorke for the use of Trinity Church and that he give Security for his good behaviour for three Months from the date hereof and also Pay the Costs of this Special Sessions.¹⁹

Ludlow and his security, John Hutchins, one of the justices who had tried him, gave recognizance in the sum of fifty pounds for

¹⁸ The asper was a Turkish silver coin.

¹⁹ Ms. Mins. NYC QS 1694-1731/32, pp. 42-43.

Ludlow's good behavior, and henceforth he not only kept out of trouble but became a person of considerable importance in the colony. In 1699 he was made clerk of the New York Assembly and in the following year clerk of the vestry of Trinity Church, both of which posts he held until his death in 1733.²⁰ A letter dated May 15, 1699, from the Governor of New York, the Earl of Bellomont, to the Lords of Trade explained how Ludlow secured the position of clerk of the Assembly. "I am sorry to say it," wrote Bellomont, "but 'tis an undoubted truth, the English here are soe profligate that I can not find a man fitt to be trusted, that's capable of businesse . . . I was obliged to employ one Ludlow a merchant to be Clerk of the Assembly this Session, one that was lately convict of clipping and coining in this towne. I think proper to acquaint your Lordships of this circumstance, that you may see how impossible a thing it is to make a right choyce of men in this place, and what sort of men I have to doe with. Those that are honest of the Dutch, being formerly kept out of imployment and businesse are very ignorant, and can neither speak nor write proper English."²¹

²⁰ William Seton Gordon, *op. cit.*, p. 38.

²¹ E. B. O'Callaghan, *Documents Relative to the Colonial History of the State of New York*, IV, p. 520.

II

THE EARLY EIGHTEENTH CENTURY

At the beginning of the eighteenth century the courts in New York looked upon counterfeiters as cheats and prosecuted those charged with the crime for misdemeanors. As a result cases which in England would have been tried at Assizes were cognizable in Sessions.¹ The clipping and passing of Spanish coins was fairly common, and on February 5, 1701, the grand jurors found a bill against a certain Susannah Elliott for uttering and putting away clipped and hammered money. She pleaded not guilty in the Court of Quarter Sessions and brought the King's writ of certiorari for removing the indictment and record to the next Supreme Court of Judicature, which was allowed and ordered to be returned.² The Supreme Court on October 7, 1701, ordered the record of the Widow Elliott to be brought up from Quarter Sessions in the afternoon³ but there is no indication of the disposal of the case.

On May 7, 1701, Richard Thomas, a mariner, who had been indicted by the grand jury on the previous day for uttering counterfeit dollars, was tried in Quarter Sessions and found not guilty.⁴ The next winter, on February 4, 1702, William Fowler, charged with passing sundry clipped "Ryalls" in New York City, appeared in Quarter Sessions and managed to make an explanation which satisfied the court. His story was that the clipped coins in question were intermixed with a large sum of money, that he did not know the persons who had clipped them, that he did not know there were such pieces among the coins he

¹ Julius Goebel, Jr., and T. Raymond Naughton, *Law Enforcement in Colonial New York* (N.Y.: Commonwealth Foundation, 1946), p. 95.

² Ms. Mins. NYCQS 1694-1731/32, pp. 60-61.

³ *The Minutes of the Supreme Court of Judicature of the Province of New York 1691-1704* (N.Y.: New-York Historical Society, 1952) II, p. 42.

⁴ Ms. Mins. NYCQS 1694-1731/32, p. 63.

paid out until he had paid the same, and finally that he believed he had received the said money from Rhode Island. Thereupon several persons of note came forward and vouched for his honesty and good fame and reputation. The court then ordered that the clipped coins, 131 in number, be melted down and given to the defendant, who was discharged, paying his fees.⁵

The clipping and counterfeiting which was going on prompted the common council of the City of New York on October 26, 1702, to resolve to petition the General Assembly of the province that a "Law be made Prohibiting the Coyning & Clipping of the Currnt. Money & for uttering base Money in the Room of good."⁶ Even before the assembly took action on the petition, two more persons were indicted, the first of whom was Garrett Onclebagg, a silversmith and assistant alderman.⁷ Onclebagg appeared in Quarter Sessions on November 3, 1702, and with his surety, Ahasuerus Hendrickse, gave bail in the amount of £100 not to depart the court without permission. The next day the grand jury indicted him for coining and uttering "false Money of base & mixt Mettalls." The defendant prayed that he have time till the next court to traverse the indictment and that he have a copy thereof. His requests were granted, and he provided bail in the amount of £200, and his sureties, Ahasuerus Hendrickse and Lawrence Vanhooke, each in the amount of £100. When the next court met on February 3, 1703, Onclebagg at first pleaded not guilty and requested that his trial be postponed until the following morning, to which the court gave its consent. Later in the day, however, he reconsidered, withdrew his plea with the court's permission, and, though protesting he was not guilty of the "fraud" mentioned in the indictment, nevertheless submitted himself to a fine and prayed the mercy of the court. He was thereupon fined twenty pounds and fees, ordered to stand committed until the same were paid and also to give sureties in the

⁵ *Ibid.*, p. 68.

⁶ *Minutes of the Common Council of New York II*, p. 206.

⁷ Stephen G. C. Ensکو, *American Silversmiths and Their Marks* (N. Y.: Robert Ensکو, Inc., 1948) III, p. 100.

sum of £100 for his good behavior for one year.⁸ Henceforth he apparently did no more counterfeiting, although he was in the courts not infrequently, for example in 1710 for bastardy and in 1712 for champerty,⁹ and for a time he located in New Jersey to escape accusations but later returned to New York.¹⁰

On the day after the indictment of Onclebagg for coining and uttering the grand jurors presented a certain Sophia Thomas "for having in her Custody sundry Clippings of Curr. Silver Money & beaten plate." At the next court, on February 3, 1703, the defendant demurred to the insufficiency of the indictment. When the attorney general joined in the demurrer and the court had heard the argument, it was ordered that the indictment be quashed as insufficient and that the defendant be discharged from her recognizance, paying fees.¹¹

Possibly the cases of Onclebagg and Sophia Thomas helped the sponsors of a bill to prohibit coining and clipping which had been proposed by the City Council in October. In any event, a law was passed by the assembly entitled "An Act against Forging, Counterfeiting and Clipping of Foreign Coyn, which is Current Money in the Collony of New-York." The text of this act, which was signed by the governor on November 27, 1702, is as follows:

For as much as by the Laws of this Collony no Condigne Punishment is at this time provided for such evil disposed Persons as shall Counterfeit, Forge, Clip, File or otherwise lessen and debase such kind of Gold or Silver of other Realms, as current Money within this Collony of New-York, where by divers evil disposed Persons as well without this Collony as within, are encouraged and imboldened Dayly to Counterfeit, Forge, Clip, File and otherwise lessen and debase such kind of Gold and Silver, and utter the same in this Collony, to the great detriment of her Majestys Subjects. Be it therefore Enacted by the Governour and Council and Representatives conven'd in General Assembly, and by the Authority of the same, That

⁸ Ms. Mins. NYCQS 1694-1731/32, pp. 70, 71, 74, 77.

⁹ *Ibid.*, p. 192 and Ms. Mins. SCJ 1710-1714, p. 426.

¹⁰ Stephen G. C. Ensko, *loc. cit.*

¹¹ Ms. Mins. NYCQS 1694-1731/32, pp. 71, 72, 78.

if any Person or Persons hereafter shall falsely Forge, Counterfeit, Clip, File or otherwise lessen or debase such kind of Gold or Silver as is the current Money of this Collony, and is permitted to be current within the same the Offenders therein, their promoters, aiders and abettors, being convicted thereof, according to the Laws of her Majesties Kingdom of England, of such Offences, shall be Imprisoned for the space of one whole Year and a Day, and forfeit all their Goods and Chattels, any Law, Usage or Custom to the contrary hereof in any wise notwithstanding. Provided That this Act shall be of force for the space of One Year, and no longer.¹²

It was not long before a grand jury indicted, on February 3, 1703, one Anna Vanderspiegel for having uttered on January 24 newly clipped and filed Spanish money which was current in New York. On May 4 the defendant demurred to the insufficiency of the indictment, the attorney general joined in the demurrer and the Court of Quarter Sessions ordered the prisoner discharged.¹³

The authorities were with reason concerned about the clipping of coin and the importation of clipped pieces, and on April 17, 1705, the governor and council ordered that a proclamation issue forbidding the importation of clipped bitts and double bitts.¹⁴ On the first of May two persons were indicted for clipping Spanish coin and uttering the clippings. One of them was Mary Barnes, a victualler, who was charged with having "fraudulently deceitfully and Craftilly" clipped Spanish Ryalls and pieces of Eight and on April 18 in the East Ward of the city paid out the clippings. She pleaded not guilty, was prosecuted in Quarter Sessions on August 8 by Attorney General Bickley, and was acquitted by the jury. The other individual, likewise accused of clipping "Royalls and double Royalls" and passing the clippings on April 7 in the East Ward, was a baker named John Kingston, who pleaded not guilty and, like Mary Barnes, was acquitted by the jury.¹⁵

¹² *Journal of the Legislative Council of the Colony of New York 1691-1775* (Weed, Parsons & Co., 1861) I, pp. 1881-89 and *The Colonial Laws of New York* (Albany: James B. Lyon, 1894) I, p. 521.

¹³ Ms. Mins. NYCQS 1694-1731/32, pp. 78-79.

¹⁴ Ms. Mins. Council 9, p. 517.

¹⁵ Ms. Mins. NYCQS 1694-1731/32, pp. 96-99 and 102-104.

Before these cases had come to trial, the governor, Viscount Cornbury, in a speech to the assembly on June 14, 1705, said: "I am of opinion it will be necessary to pass An Act to prevent ye clipping & Defacing ye Forreign Coin wch has Currency in this Province."¹⁶ No act was passed, however, and at a meeting of the governor and council on December 13, 1705, a newly appointed member of that body, John Barberie, acquainted the board that notwithstanding the endeavors that had been made to prevent the importation of clipped bitts and double bitts great sums of them were daily being brought into New York from neighboring colonies. He therefore prayed that some measures be taken to prevent this in the future, and the consideration of the matter was deferred until the next meeting of the council.¹⁷

In the spring of 1705 the authorities in New York had their first contact with a counterfeiter of paper money, an extremely slippery individual named Thomas Odell. In July of the preceding year Governor Dudley of Massachusetts was so alarmed by the counterfeiting of the twenty shilling bill of his province that he had issued a reward of £50 for the apprehension of anyone concerned in the matter. Within a week two blacksmiths, Peregrine White and Benons White, a carpenter, John Brewer, and a winecooper, Daniel Amos, were in the Boston jail, and their plate and press had been seized.¹⁸ Odell, however, "one of the principal Actors in that Villany & cousenage," had fled, and on August 8 a reward of £30 was offered for the apprehension of Odell, who was described as of middle stature, slender and straight body, black hair, thin visage, holding his head somewhat on one side in his walk.¹⁹ Apparently he was taken up in Pennsylvania, whence he was sent to New York.²⁰ The minutes of the council of New York under the date of May 17, 1705, reveal that his captors were Jno.

¹⁶ *Journal of the Legislative Council of the Colony of New York* I, p. 225.

¹⁷ Ms. Mins. Council 9, p. 575.

¹⁸ *Boston News-Letter*, July 31, 1704, p. 2.

¹⁹ *Ibid.*, Aug. 17, 1704, p. 2.

²⁰ *Ibid.*, Nov. 12, 1705, pp. 1-2.

Cawley, Nicholas Thomas Jones and Robert Sanders, and that the prisoner was to be forwarded to Massachusetts.²¹ On the last day of May Odell, who was in irons on the sloop *Derrick Adolph*, escaped at Newport, Rhode Island, but was recaptured on June 6 in a barn two miles outside of that town.²² He finally was delivered to the authorities in Boston, was tried on November 6, found guilty, fined £300 and costs and sentenced to serve a year in prison.²³ Nine years later he was again in the Boston jail for counterfeiting and this time he escaped and seemingly was not taken again despite the reward of £30 offered by the governor for his apprehension.²⁴ It would be interesting to know if he fled to Orange County, New York, and is the same Thomas Odell who was the defendant in a criminal action at a meeting of the General Sessions for that county held at Goshen on October 29, 1740.²⁵

In the spring of 1706 two coiners were convicted in New York City and severely punished. They were Bartholomew Vank and Thomas Roberts, who were indicted on March 14 and two days later entered pleas of not guilty in the Supreme Court of Judicature. Their trial took place on June 7, and the witnesses for the Queen were James Wright, William Anderson, Jeremiah Caldcutt, Ebenezer Willson, William Peartree, George Booth, Cornelius Clopper, John Tuder and John McLannen. Both defendants were found guilty and the following day judgment was pronounced that they be "severally whypt att the Carts Tail in the Broadway in sight of the Town Hall, at the Well in the Broad way, att the End of Bever Street, att the End of Pearl Street, att the Cage, att the most publick part of the markett Place at Burghers path, att the Corner of Wall Street, and att the City Hall, three Lashes each at each place, this to be done on Wednesday next being the Twelfth instant between the hours of ten

²¹ Ms. Mins. Council 9, p. 520.

²² *Boston News-Letter*, June 4, 1705, p. 2 and June 11, 1705.

²³ *Ibid.*, Nov. 12, 1705.

²⁴ *Ibid.*, Nov. 8, 1714, p. 2.

²⁵ Ms. Mins. Orange Co. Sess. 1727-1779, p. 53.

and one; and the Wednesday then next following both to be sett on and in the Pillory for one hour between the hours of eleven & one with an inscription in Capitall letters fixt over each of their heads on the Pillory with these words for Counterfeiting Dollars when they have undergone these punishments to be respectively discharged paying their fees.’²⁶

The law which had been passed in 1702 forbidding the clipping of foreign coin had expired after one year but as the colony was still plagued by clipped money the assembly in September, 1708, passed an act to revive the law of 1702, and the measure was signed by Governor Cornbury on October 6. This act revived the earlier law in its entirety and unchanged, save that it was now to be in effect for a period of ten years, until October 6, 1718.²⁷ Some months later the council had further evidence of the circulation of clipped money when it was informed that Mr. Grassett, the weighmaster, had a considerable sum of such coin which had been received as revenue.²⁸

On June 8, 1709, an act for the currency of bills of credit in the amount of £5,000, the first for the emission of paper currency, became law. It contained the following provision: “. . . to prevent the Counterfeiting any of the said Bills they shall be Dated, and Indented on the top thereof with the Arms of the City of New York Stamp’d or printed on the left Side thereon, towards the bottom of every of the said Bills, and the Indent shall pair with a Suit a Counterpart thereof, bound in A book for that purpose, and Subscribed by the parties herein appointed to do the same, to be kept by them of the same tenor and Date and so neer in Similitude in all Circumstances as possible may be. . . .” It was likewise provided that any person convicted of counterfeiting any of these bills should incur the pains and penalties of felony without benefit of clergy.²⁹ In two further acts of the same

²⁶ Ms. Mins. SCJ 1704/05–1709, pp. 54, 57, 68, 69, 72.

²⁷ *Journal of the Legislative Council of the Colony of New York I*, pp. 263, 264, 267 and *The Colonial Laws of New York I*, p. 621.

²⁸ Ms. Mins. Council 10, pp. 261–262.

²⁹ *The Colonial Laws of New York I*, pp. 667–668.

year for the emission of paper money, one passed on November 1 for issuing £4,000 and the other, passed on November 12, for issuing bills of credit in the amount of 10,000 ounces of plate or 14,545 Lyon dollars, the penalty for those convicted of counterfeiting the money was the same as in the law of June 8.³⁰

A change was made on October 30, 1710, in the law of 1702, revived in 1708, prohibiting the forging, filing, counterfeiting and clipping of foreign coin. The act of October 30, 1710, provided that whatever was contained in the earlier law so far as it related to clipping only was repealed. It was further enacted that all clippings of foreign coin current in the colony that should make up the weight of money received or passed, should have the appearance of the stamp of the foreign coin on some part of the clipping. It was likewise specified that no dollars or half dollars or any other coin than Spanish coin of "Civil, Pillar & Mexico Plate" was permitted by this act to be clipped.³¹ Governor Robert Hunter, informing the Lords of Trade that he had signed this act, explained that it was "only intended to prevent their [the colonists'] slaves from stealing their Household Plate to clip."³²

³⁰ *Ibid.*, I, pp. 689–692 and 695–697.

³¹ *Journal of the Legislative Council of the Colony of New York* I, pp. 301–303 and *The Colonial Laws of New York* I, p. 714.

³² E. B. O'Callaghan, *Documents Relating to the Colonial History of the State of New York* V, pp. 181 and 185.

III

THE YEARS 1711-1726

From 1710 until the affair of Wallace and Willson in 1727 evidence of counterfeiting is not very extensive. On July 26, 1711, a law was enacted for the emission of bills of credit in the amount of 25,000 ounces of plate, and this act contained the usual provision making the convicted counterfeiter of this money subject to the pains and penalties of felony without benefit of clergy.¹ On August 7 of the same year one Peter Watson, who had been bound over on suspicion of coining false dollars, came into Quarter Sessions but when no one appeared to prosecute him it was ordered that he and his surety be discharged from their recognizance, paying fees.²

A New York dispatch dated July 20, 1713, which was printed in the *Boston News-Letter*,³ reads as follows: "One *Berry* a Taylor and one James Mark who lately came from Boston and Rhode-Island, are in Goal for Counterfeiting our Paper Money, And 'tis said they have both confessed the Fact, which is Felony without benefit of Clergy. *Mark* was apprehended at Philadelphia, and brought hither; a third Person was concerned, who is gone to Maryland."

Mark was arraigned in the Supreme Court of Judicature on September 4 and pleaded guilty to an indictment for counterfeiting the bills of credit of the government. Joseph Berry, being arraigned the same day, pleaded not guilty, was tried and convicted by the jury, which found that he had no lands, tenements, goods or chattels at the time the felony was committed. On the next day the court sentenced both to be hanged on the following Wednesday between eleven in the morning and one in the afternoon.⁴

¹ *The Colonial Laws of New York* I, pp. 737-740.

² Ms. Mins. NYCQS 1694-1731/32, p. 202.

³ July 27, 1713, p. 2.

⁴ Ms. Mins. SCJ 1710-1714, pp. 466, 472, 475-477.

The Boston newspaper in reporting the outcome yielded the information that the money they had counterfeited was the £4 bill of credit, of which they had not made more than thirteen bills. Mark, it was said, claimed that their plate was broken and that he had lost it in Pennsylvania.⁵ It seemed that the tailor and engraver were both to pay for their crime with their lives, but on Tuesday, the day before that set for their execution, "most of the Gentlewomen" of New York, according to the Boston newspaper,⁶ "waited upon his Excellency our Governour, addressing him earnestly with Prayers and Tears for the Life of *Berry & Mark* . . . whereupon his Excellency was pleased to pardon them."

Their pardon was actually issued on October 13,⁷ and on the seventeenth of the month, "being brought to ye Barr," they were asked what they had to say for themselves why execution should not be awarded against them. At this they produced the Queen's pardon and prayed that it be allowed them, to which the Court acceded and ordered that they be discharged, paying their fees. Then Berry presented gloves to each of the judges "as in ye 4th. Edward 4th," while "the other Defendt. Mark being very poor in Respect of his poverty the Judges Remitted to him ye Ceremony of presenting Gloves."⁸

Three further acts for striking bills of credit, passed on September 4, 1714, July 5, 1715, and December 23, 1717, respectively, carried the usual provision making counterfeiting of the money felony without benefit of clergy.⁹ But even the death penalty did not prevent some individuals from committing that crime, as is shown by Governor Hunter's speech to the House on April 28, 1719. It read: "The late Attempt of some wicked Men, to counterfeit your Bills of Credit, I hope is in a great Measure disappointed, by the early Discovery and the Flight of the Persons guilty in all Appearance, for the finding and

⁵ *Boston News-Letter*, Sept. 14, 1713, p. 2.

⁶ *Ibid.*, Sept. 21, 1713, p. 2.

⁷ *Calendar of New York Colonial Commissions* (N. Y.: New-York Historical Society, 1929), p. 16.

⁸ Ms. Mins. SCJ 1710-1714, p. 500.

⁹ *The Colonial Laws of New York I*, pp. 821, 855, 943.

securing of whom, I have used all possible Diligence. I submit to you, whether it may not be necessary to pass a Law, forbidding the Currency of all Bills above a certain Value, which shall be pasted on the Backside, after a certain Time fixed, by which Time the Treasurer may change true Bills, so pasted with others which he is to sink; for this Counterfeit is concealed by the Means of such Pasting, as these false Bills will convince you."¹⁰ To this the General Assembly two days later made the following reply: "The Endeavours you have used to apprehend the Persons supposed guilty of Counterfeiting the publick Bills of Credit, we hope will at last, be attended with the desired Effect, of bringing them to public Justice, and in the mean Time put a Stop to the Currency of such Bills: We will consider that and all the other Parts of your Excellency's Speech; and will endeavour to do what will be most conducive to his Majesty's Service and the Benefit of this Province."¹¹

Perhaps that same year but more likely early in 1720 a certain Abner Hunt of Westchester, as reported by the *American Weekly Mercury* (Philadelphia) of March 17, 1720, was arrested in New York for counterfeiting and passing a six pound bill of New York. On Friday, March 11, he was tried in the Supreme Court and acquitted by the jury of the charge of felony in counterfeiting the bill but found guilty of a misdemeanor in passing it, knowing it to be counterfeit.

Some idea of the extent of the counterfeiting of the money of New York may be obtained from the record of false bills destroyed in Quarter Sessions in New York City. On November 2, 1720, Jacobus Van Cortlandt, late mayor of the city, brought into that court two counterfeits, a four pounds bill and a ten shillings bill which had been lodged with him during his mayoralty. At the same time John Cruger presented in court the following counterfeits: two bills of eight pounds each, numbered 4204 and 2039; one six pound bill, no. 3940; one five pound bill, no. 1031; one four pound bill, no. 5207. They had all been

¹⁰ *Journal of the Votes and Proceedings of the General Assembly of the Colony of New York* (N. Y.: Hugh Gainé, 1764) I, pp. 427-428.

¹¹ *Ibid.*, I, p. 428.

brought to him as false but upon examination he had not been able to discover the persons who made them. By order of the court the above bills were then and there burned to ashes.¹²

An act passed on November 19, 1720, provided that "if any Person or Persons whatsoever, shall Presume to Counterfeit any of the Bills of Credit made Current by this or any other Act of the General Assembly of this Province or Shall alter any of the Said Bills made Current as aforesaid so that they Shall appeare to be of Greater Value than by any of the Said Acts the Same Bills so Altered were Enacted Signed and Numbered to Pass Current for or Shall knowingly Pass any of the Bills aforesaid So Counterfeited or altered, every Person Guilty of Counterfeiting or altering the said Bills as aforesaid shall be Guilty of Felony and Convicted of Such Counterfeiting or altering shall suffer death Accordingly, and not have the benefit of Clergy and every Person knowingly passing any Such Counterfeit or alter'd Bill and Convicted thereof Shall also Suffer the Paines of Death without Benefit of Clergy."¹³ It may further be noted that these same provisions were incorporated in another law passed on July 24, 1724.¹⁴

Early in 1723 the government was much disturbed by the discovery that one Thomas Lynstead of Hempstead, Long Island, had been engaged in counterfeiting twenty shilling bills. Some of the documents which could have shed light on the affair were destroyed in the burning of the State House at Albany in 1911, but a good general account is found in the *New-England Courant* (Boston) of June 3, 1723, which under the dateline of "Rhode-Island, May 30" reads as follows:

We are advis'd from Hemstead on Long-Island, that one Thomas Lenstead, who came lately from England to that Place, left a Bundle of Papers at his Lodging, which a young Woman in the House opening, found to be New-York Bills of Credit, seven of which she carryed to New-York, and offer'd to put them off; but was soon discover'd, by reason the Bills were none of them sign'd: And the said Lenstead, hearing of his Bills being

¹² Ms. Mins. NYCQS 1694-1731/32, p. 385.

¹³ *The Colonial Laws of New York* II, p. 25.

¹⁴ *Ibid.* II, pp. 198-205.

discover'd, went home and hang'd himself soon after. He left a Paper behind him signifying he had met with a great deal of Trouble, of which this was the greatest; but that he receiv'd the Bills from some in this Country, and had not put any of them off, tho' People conclude they were made in England. He was accounted one of those call'd *Free-Thinkers*, and had formerly belong'd to that Tribe in England. He was a Man of bright Parts, and great Learning, in good Credit at Long-Island, and was to have been marry'd that day he was buried. He left a Memorandum of 3000 l. of these Bills, but they have found 250 l. of it.

A number of Lynstead's twenty shilling notes were found in his handkerchief,¹⁵ and the government left no stone unturned in searching for the remaining bills. The governor reported to the council on May 9 that Mr. Samuel Clowes, the Coroner of Queens County,

had found some Books and Papers, belonging to Thomas Lynstead who hanged himself on Saturday last, which Papers and Books discovered That the said Lynstead [had been] concerned in Counterfeiting Public Bills of Credit of this Province. Upon which the said Clows was called in and delivered those Books and Papers to the Board and Informed them of what he had observed from the said Books and Papers and that [he] Believed or knew that one Sherrard a Taylor of Oyster Bay, and Likewise one Thomas Kable of the same place had been intimate acquaintance of the said Lynstead particularly since his last coming from England, and likewise appearing to this Board by the affidavit of one Sarah Albertsen that the said Sherrard was in Company with Lynstead on the same day and at the House of Albertsen where Lynstead delivered a number of Counterfeit Bills to the aforesaid Sarah Albertsen, It is ordered by this Board that the Sheriff of Queens County do forthwith search the Houses of the said Sherrard and Kable and Deborah Wright...

At this point the document just quoted is partially destroyed but the greater part of what follows is preserved. The Sheriff was instructed to break open trunks or any other place of concealment in order to

¹⁵ E. B. O'Callaghan, *Calendar of Historical Manuscripts in the Office of the Secretary of State, Albany, New York, Part II, English Manuscripts, 1664-1776* (Albany: Weed, Parsons and Co., 1886), p. 477. This work will henceforth be referred to as O'Callaghan, *Eng. Mss.*

2*

discover if there were any counterfeit bills, paper or tools or anything which might throw light on the matter. He was also to apprehend Sherrard and Kable and bring them before the governor and council with all convenient speed. The justices of Queens County were given orders to make diligent enquiry as to what persons had been intimately connected with Lynstead and strictly to examine and search as many persons as they had reason to suspect were concerned with him in his evil practices in counterfeiting and issuing false bills. And finally the Sheriff of New York was instructed to repair to the house of Thomas Pullen in New York City and there make a thorough search of all chests, trunks and any other place in the house. He was in case of need to break open any of these "in order to discover any Counterfeit Bills or Papers or Letters relating thereto or shewing any Correspondence with Thomas Lynstead who appears to this Board to have great Quantities of the said false Bills and to have been intimate with the said Pullen."¹⁶

On the fourteenth of May the High Sheriff of the County of New York reported to the council that he had searched Pullen's house but found neither counterfeits nor papers nor letters relating thereto nor evidence that Pullen had had any correspondence with Lynstead.¹⁷ On the following day Sherrard, Kable and Pullen were called before the council, where they made depositions and were dismissed. Merchant Pullen's deposition was concerned with Lynstead's having offered him money that was counterfeit, as was the deposition of Sherrard and also a statement made the same day by one Samuel Burdsell.¹⁸

The council next ordered that the justices of Queens County be directed to examine a certain Samuel Burcham of Oyster Bay concerning what he might know relating to Lynstead's having sealed up a parcel of counterfeit bills in his, Burcham's, presence. And finally the council appointed Captain Walter, Mr. Harrison and Doctor Colden to be a select committee to examine all persons concerning

¹⁶ Ms. Mins. Council 14, pp. 150-152.

¹⁷ *Ibid.* 14, pp. 158-159.

¹⁸ *Ibid.* 14, p. 159 and O'Callaghan, *Eng. Mss.*, p. 478.

Lynstead's counterfeiting of bills or any matters relating thereto.¹⁹ Nothing further is known of the affair but it may be surmised that Lynstead had a plate made in England for counterfeiting the twenty shilling bill of New York and perhaps other denominations.

At the time that Lynstead's affairs were under investigation a number of counterfeit bills were brought into the Court of Quarter Sessions in New York City and there burned on May 8, 1723: Robert Walker, the mayor, produced a bill of three pounds, no. 3010, one of twenty shillings without any number, one of five pounds, no. 1475, another of five pounds, no. 77, and one of thirty shillings, no. 1114; Mr. Justice Kip produced one other bill of ten shillings, "all which were taken upon Persons that were passing the same but that no discovery could be made of the Person or Persons who Counterfeited the same being traced back to a great many Persons who had taken the same Bills as good & passed the same from One to another without discovering the fraud."²⁰

In the same year the passing of counterfeit coin was brought to the attention of the Court of General Sessions of Ulster County meeting in Kingston on December 18, when John Crook and Jurian Tappan complained of one Benjamin Wentwood and Isaak More for tendering false Lyon dollars²¹ for payments. Jurian Tappan made deposition that on that day a person who gave his name as Benjamin Wentwood came to Tappan's father's house and bought a pair of shoe buckles from Jurian. Wentwood paid with a Lyon dollar. When Tappan expressed doubt concerning its genuineness, Wentwood explained that the dollar looked so "by Reason he had worn the doller with some penneys," whereupon Tappan accepted the piece and gave him the change. Soon after this John Crook came to Tappan with a false Lyon dollar and asked him if he had not received the fellow of it. Tappan then compared the coin he had just received with the one brought by Mr. Crook and realized that both were false.

¹⁹ Ms. Mins. Council 14, p. 160.

²⁰ Ms. Mins. NYCQS 1694-1731/32, p. 422.

²¹ The lion dollar was a silver coin of Holland, bearing as type a rampant lion.

The next day Wentwood was sworn on the holy evangelists and declared that he had obtained the Lyon dollar which he paid to Tappan from a certain Thomas Steel, who had since fled. A hue and cry for Steel was ordered, while Wentwood was jailed. Isaak More prayed that he might not be sent to jail and promised to stay in town until he had leave to depart, and his petition was granted. Before the day was over William Plough, the constable, captured Steel, who was intrusted to the custody of the constable until the court met the next day. Both prisoners were then required to give recognizance in the amount of £25 each to appear at the next sessions.²² There is no evidence as to the disposal of these cases nor is it recorded whether Isaak More escaped prosecution.

That the counterfeiting of the currency continued is shown by the fact that at a meeting of the Quarter Sessions in New York City on May 6, 1724, Alderman Cruger produced a false bill which he had stopped in the hands of Thomas Mayor and another of twelve shillings in the hands of John Cayal; the Mayor of New York brought into court a twelve shillings bill taken with Nicholas Dally; Alderman Kip produced two half crown counterfeit bills, one of them stopped in the hands of Caleb Hunt of Westchester; Alderman Cortlandt brought in a twelve shillings bill taken in the hands of the daughter of Justice Hunt in Westchester.²³ At a later session, on August 5, 1724, a counterfeit six shillings bill produced by the mayor and a twenty shillings bill produced by Alderman Phillipse were destroyed.²⁴ Again, on November 4, Alderman Cortlandt brought in a counterfeit twenty shillings bill and a thirty shillings bill, while Alderman Cruger produced a false twenty shillings bill.²⁵ In the Supreme Court of Judicature on November 28, 1724, Robert Walker, the second justice of that court, sent a twelve shillings bill to the Grand Jury, which returned it to the court as false, and it was ordered that the bill should be burnt.²⁶

²² Miscellaneous Manuscripts New York State Library, 7460-20.

²³ Ms. Mins. NYCQS 1694-1731/32, p. 437.

²⁴ *Ibid.*, p. 442.

²⁵ *Ibid.*, p. 447.

²⁶ Ms. Mins. SCJ 1723-1727, p. 118.

This counterfeit bill may have figured as evidence in the case of one Isaac Mense,²⁷ who was on the same day arraigned in the Supreme Court and pleaded not guilty. He was tried on November 30, and the following persons were evidences for the King: Marguerite Ferrand, Alderman Cortlandt, Alderman Kip, the sheriff, the mayor, and Alderman Cruger. The jury found Mense not guilty, whereupon the attorney general moved that the indictment for the misdemeanor be quashed for insufficiency thereof, which was ordered accordingly.²⁸ James Alexander somewhat later drew up four indictments against Mense, one for counterfeiting a York bill, one for altering a York bill, one for issuing and passing a counterfeit, and one for passing an altered bill. Alexander, who assisted at the subsequent trial as Counsel for the King, wrote that the indictments cost him a great deal of thought, pains and care to draw.²⁹ On March 12, 1725, the grand jury found the four indictments *billa vera*.³⁰ On the fifteenth the trial took place on the indictments for altering and for knowingly passing and uttering in payment a bill of credit of New York. There were eighteen witnesses for the defendant, while the evidences for the King were Margaret Ferrand, Elizabeth Viele, Tunis Quirk, Abraham Hoyt, Alderman Cortlandt, Daniel Quigley, William Dugdale, William Osburn, John Cruger, Richard Ashfield and Richard Bradley. It may be assumed with considerable probability that Mense was charged with passing an altered bill to Margaret Ferrand. In any event the jury acquitted the defendant.³¹ There remained two indictments on which Mense was still to be tried, but on the next day he presented his humble petition that he be discharged, he "having by his Country been acquitted of the Crimes whereon he was Indicted Arraigned &

²⁷ Goebel and Naughton, *op. cit.*, p. 353, note 101, do not appear to have used the Minutes of the Supreme Court of Judicature for this case and they give the name of the defendant, taken from James Alexander's Supreme Court Register, as Mene. In the Register and the Minutes, however, the name is clearly Mense.

²⁸ Ms. Mins. SCJ 1723-1727, pp. 118, 120-121.

²⁹ James Alexander, Supreme Court Register 1721-1742 (NYHS), p. 11.

³⁰ Ms. Mins. SCJ 1723-1727, p. 131.

³¹ *Ibid.*, p. 134.

Tryed whereupon the Attorney Generall . . . declared that he would not prosecute upon either of the Indictments. . . ."³²

Further indications of counterfeiting are found in the records of Quarter Sessions, where on February 3, 1725, Alderman Cruger produced two false bills, one of eight shillings and one of sixteen shillings, the first stopped from D. Halse of Elizabeth Town and the other from a certain Peter Mitchell.³³

On June 4, 1725, the Grand Jury indicted one John Jones "for uttering a bill of Credit of one Shilling for Twenty," and, after the indictment was read on the following day, Jones pleaded not guilty. His trial was held in the Supreme Court on June 8, with Messers Shennancup, Sharper and Bobine as witnesses for the King; probably the bill had been passed to Shennancup. The Jury found the defendant guilty of knowingly passing the altered bill.³⁴ Sentence, however, was not passed at that time, and on December 6 Jones produced before the court the King's pardon, which was read by the court and allowed.³⁵

Counterfeited bills continued to be stopped by the magistrates, for on August 4, 1725, the mayor brought into Quarter Sessions a false twenty shillings bill passed to a Mr. Vernon and also a counterfeit twelve shillings bill passed to a Mr. Schermerhoorn; Alderman Philipse produced at the same time a false forty shillings bill; Alderman Cortlandt brought in five counterfeits, one of forty shillings, stopped in the hands of Johannes Graef, who received it from Mrs. Fanouil, one of twelve shillings, stopped in the possession of one Myer, a blacksmith of Hackinsack, one of twelve shillings, one of twenty shillings, stopped in the hands of Peter Bowden, and one of six shillings, stopped in the hands of Mrs. Hawkins, who received it of William Ponsonby, who swore that he had obtained it from Gabriel Luff of Long Island.³⁶ Robert Walker on October 18, 1726, produced in the Supreme Court a false bill of twelve shillings,³⁷ and at a meeting of

³² *Ibid.*, p. 136.

³³ Ms. Mins. NYCQS 1694-1731/32, p. 448.

³⁴ Ms. Mins. SCJ 1723-1727, pp. 143, 146.

³⁵ *Ibid.*, p. 170.

³⁶ Ms. Mins. NYCQS 1694-1731/32, p. 453.

³⁷ Ms. Mins. SCJ 1723-1727, p. 220.

Quarter Sessions on November 1, 1726, Alderman Cruger brought in two counterfeit six shillings bills, one of which was taken with John Gara and the other with John Liddle.³⁸

A law of November 11, 1726, authorized the stopping of counterfeit or altered bills in these terms:

... be it further Enacted by the Authority Aforesaid That if any Bill or Bills of Credit Shall be brought to the Treasurer of this Colony for Exchanging as in this Act is Directed or in payment of Dutys or taxes due by Virtue of any other Act or Acts of the General Assembly of this Colony which he shall have Good reason to Suspect Are Counterfeited or Altered to Appear of A higher Value than they were originally Struck for it Shall and may be lawfull for the said Treasurer to Stop and detain Such Suspected Bills and to endorse thereon the Name of the Person tendring the same and the time when, And all Such Bills he shall so Stop or detain Shall by him be Delivered from time to time to the Court or Courts of the Quarter Sessions to be held for the City and County of New York who thereupon are either to Destroy the Same in the Said Court or to Proceed thereon As in their Discretion Shall Seem meet and it Shall and may be Lawfull to and for the Mayor Recorder and Aldermen of the City of New York to Stop and Detain Suspected bills and to do in that behalf what is hereby mentioned to be done by the said Treasurer.

AND it Shall and may also be lawfull for all Justices of the peace Within their respective Counties In this Colony to Stop and detain Such Suspected Bills as aforesaid and (making the abovementioned Endorsement thereon) Deliver them from time to time at the next General Sessions of the peace to be held for Such County, who are thereupon Either to destroy the Same in Such Court or Courts or to proceed thereon as in their Discretion shall Seem meet And the Said Court or Courts are hereby required from time to time respectively to Certify to the said treasurer the Number and Value of the Bills which they shall destroy in the manner aforesaid PROVIDED Nevertheless that nothing herein Contained Shall alter or lessen the Punishments inflicted by any former act or Acts of the General Assembly of this Colony on persons Counterfeiting the Bills of Credit thereby made Current in the said Coloby.³⁹

³⁸ Ms. Mins. NYCQS 1694-1731/32, p. 471.

³⁹ *The Colonial Laws of New York* II, pp. 344-345.

IV

THE YEARS 1727-1735

In the *New-York Gazette* of March 13, 1727, appeared the following advertisement: "Public Notice is hereby given, That at *Philadelphia* they have found out some Twelve Shilling Jersey Bills that are Counterfeits: They are newly Printed and very artfully Signed. In the flourish at the top of the Bill there is the representation of a Basket, which in the Counterfeit is much finer than in the True Bills; and the great T is much plainer than in the True Bills."

The next day two men were arrested in New York City for passing three counterfeits. This account of their seizure was printed in the *New-York Gazette* of March 20:

On the 14th Instant in the Morning, One *David Willson* and one *David Wallace*, were Apprehended and Committed to the common Goal of this City for Utterung Counterfeit Bills of Credit, made Current by Act of Assembly, of this Province, and of the Province of *New-Jersey*. Upon their Examinations before the Mayor and other Magistrates they Confess they brought about Eight Hundred Pounds of that Money from *Maryland*. *David Willson* denied that he knew it to be Counterfeit, but *David Wallace* ingeniously confessed that about four Months ago, he brought about a Thousand Pound, of the Counterfeit Money, over in the Ship *Richmond* to *Philadelphia* from *Dublin*. That he had the said Money from one *Thomas Morough* (who lately lived at *Elk River*, in *Maryland*) but was then in *Dublin*, and that the said *Thomas Morough* told him they were Counterfeit Bills, but that he knows not who Printed or signed them. That he was to have a third of the said Counterfeit Money for putting it off. That the said *Thomas Morough* designs into *North America* (to *Maryland* as he believes) with more of that Counterfeit Money, not thinking it prudent to Venture the whole in one Vessel. The whole Counterfeit Money, that was made being Three Thousand Pounds or upwards, That the aforesaid *David Willson* was Employ'd by the said *David Wallace* to Exchange and put off the said

Counterfeit Bills, for which he was to have Four or Five Shillings in the Pound. That there was some Pensilvania Counterfeit Five Shilling Bills, among the Counterfeit Bills he brought from *Dublin*, some of which he burnt in *Maryland*, they not being well signed. That he and the said *David Willson* had not fully Resolved how to steer their Course, but had some thought of going towards *New-England*. That he paid to the said *Thomas Morough* in *Dublin*, about Ten Pound for his share of the Printing and signing the said Counterfeit Bills, and was to pay him something more when he came over. When the said *David Willson* and *David Wallace* were taken, they had 184 Counterfeit Jersey Bills at Three Pounds each, 93 ditto (at Three Shillings: They had also 23 Counterfeit *Pennsylvania* Bills at Five Shillings, and one ditto at One Shilling. And they had 646 Counterfeit *New-York* Bills at Four Shillings each, and 3 ditto at Fifteen Pence each which were Sign'd)¹. D. Provoost, Jacobus Kip, G. Beekman, John Cruger, Besides upwards of 100 l. in Counterfeit *Jersey Bills*, which they pass'd here the day before they were apprehended, and one 4s. *York Bill*.

The Counterfeit Bills may be known from the True, by taking Notice, That in the Counterfeit Three Pounds *Jersey Bills*, the Letter b is left out of the word Publick. That in the Counterfeit Twelve Shillings *Jersey Bills*, the Flourishing at the Top is handsomer and finer, and the Letter T Blacker. That in the Counterfeit Six Shilling *Jersey Bills*, the Words *Six Shillings*, at Top, are larger, and the figure 4 in 1724 is larger, and the Down stroke of the great T Narrower. That in the 18d. *Jersey*, and Four Shillings, and 15d. *New-York* Counterfeit Bills, the Figure 4 in 1724 is much larger and the Names of the Signers to all the Counterfeit *Jersey Bills*, are sullied and Rub'd, and writ with Ink inclineable to a red Purple, & the Paper courser and thinner than the true Bills.

On March 16 the grand jury presented both Wallace and Willson for counterfeiting and passing bills of credit of the Province of New York,² and about a month later the *New-York Gazette* of April 17 published the following advertisement bearing on the case:

¹ The section within parentheses is missing in the only extant copy of this number of the New York newspaper. Fortunately the item was reprinted in the *American Weekly Mercury* of March 23, 1727, pp. 1-2 and in the *Boston Gazette* of April 3, 1727, which makes it possible to fill in the lacuna.

² Ms. Mins. SCJ 1723-1727, p. 245.

Publick Notice is hereby given, That Besides the Directions formerly given how to distinguish the Counterfeit New-Jersey Bills from the True Ones, you will find that the Name Parker (in many of the Counterfeit Bills) is writ with an h, thus Parher, and, in others where they have writ the Name Parker, there is a great difference in the Letter K from the True Bills signed by Coll. John Parker.

Notice is also hereby given, That there is found in the Possession of David Williams [*sic*!] and David Wallace (who are now in New-York Goal for Counterfeiting and Uttering some of the Bills of Credit of this and the Neighbouring Governments) a Jewel of some Value, and two Horses. If any Person have any just Claim to said Jewel and Horses, they may apply to the Publisher of this Gazette, and be further Informed.

At a meeting of the Supreme Court on June 9 Wallace was presented for counterfeiting a four shillings bill and also for passing it to Mr. Livingston, while similar indictments were found against Willson. The next day the jurors also indicted Wallace for counterfeiting a bill, no. 378, and for passing a bad bill to Mary, the wife of James Livingston; at the same time they presented Willson for counterfeiting a four shillings bill and passing it to Mary Livingston. To all indictments the prisoners pleaded not guilty and they requested that they be given time until Wednesday in the next term of the court to prepare for trial, a prayer which was granted.³

Both defendants were put on trial on October 12, 1727, "for passing & Counterfeiting the bills of Creditt of this province." The witnesses for the King were Mr. and Mrs. Livingston, Samuel Heath, George Nicholls, Roger Groves, Mr. Sharper, the Attorney General and the Mayor, and the examinations of the prisoners were also read. Both were acquitted, so they were not subject to the death penalty prescribed for counterfeiting New York bills.⁴ They were, however, "found guilty of a cheat in passing some bad bills that were made counterfeits of the bills of Creditt of New Jersey," and on December 5 sentence was passed: in October they were to be put in the pillory of New York County for one hour, then be carted through the streets

³ *Ibid.*, pp. 368, 270.

⁴ Ms. Mins. SCJ 1727-1732, pp. 9-11.

with halters round their necks to the publick whipping post, where they were to be flogged, Wallace thirty-nine lashes and Willson twenty-eight; then they were to be transferred to the jail in Kings County and in January spend an hour in the pillory of Flatbush and be given the same number of lashes as they had received in New York; in February the punishment inflicted in Flatbush was to be repeated at Jamaica in Queens County; after that the prisoners were to be jailed in Westchester County until March, when they were to be pilloried for an hour in the borough town of that county and then whipped, Wallace twenty lashes and Willson ten; upon this they were to be returned to Manhattan and there serve terms in jail, Wallace for six months and Willson for three, after which they were to be discharged, paying their fees.⁵

Of two entries in the minutes of the Supreme Court of Judicature under the date of March 19, 1728, one, and perhaps both, are concerned with the counterfeits passed by Wallace and Willson. The entries read:

The two following Counterfeited bills of the bills of Creditt of the province of New Jersey being handed into Court at the tryall of David Wallace & David Willson for Counterfeiting the bills of Creditt of the said province vizt.

one bill of Six Shillings procd money numbered 587

one other bill of Six Shillings procd numbered 587

one other bill of Six Shillings procd numbered 3087

one bill of one Shilling & Six pence procd numbered 676

one bill of three pounds procd numbered 765, which said bills were then ordered to be kept by Fred Morris then Clerk in Court and being this day produced in Cot. by him It is ordered that the said bills be burnt which were burnt accordingly in the presence of the Court.

Mr. Heath brought in Court the following Counterfeited bills of the bills of Creditt of the province of New Jersey to witt twenty eight bills of three pounds each Seven bills of Six Shillings each and nine of twelve shillings each and Mr George Nicholls brought in Court other Counterfeited bills to witt three bills of three pounds each and one of Six Shillings All which

⁵ *Ibid.*, pp. 24-27 and the *New-York Gazette*, Dec. 11, 1727, p. 2.

said bills were ordered to be burnt which was done in the presence of the Court accordingly.⁶

Possibly some of the bills owned by Wallace and Willson had also been included in the parcel of altered and counterfeited New York bills amounting to the sum of sixty-three pounds, seven shillings and sixpence which Abraham De Peyster, Treasurer of the Colony of New York, brought into Quarter Sessions on May 3, 1727.⁷ As for false Jersey bills, so many of these bearing the date March 24, 1724, had been made, that the province of New Jersey struck new bills to be exchanged for the emission in question, and advertisements were printed in the *New-York Gazette* informing the public when the exchange could be made and that the final date for exchanging the bills was to be November 1, 1729.⁸

The only court case of counterfeiting recorded in 1729 was that of Jacob Forman (also spelled in the copy of the minutes as Furman and Horman), who at a meeting of the General Sessions of the Peace of Queens County held at Jamaica on May 20, 1729, was indicted "for Counter Fitting." He pleaded not guilty, was tried at the next court, held on September 16, 1729, and was acquitted.⁹

In July of this year, however, two anonymous letters were placed under the door of William Bradford, printer of New York's first newspaper, the *New-York Gazette*. The first epistle, which was shoved beneath his door on the night of July 15 and discovered the following morning, read thus: "Whereas several of these parts of *America* have sustained various Damages by Counterfeit Paper Money, especially *New-England*, *Connecticut* and the *Jerseys*, Therefore its no less than the indispensible Duty of every Well wisher to his Country, to advise the Inhabitants of approaching Danger of that kind; The Author therefore being some-what conscious of a design to that Purpose

⁶ Ms. Mins. SCJ 1727-1732, pp. 42, 44.

⁷ Ms. Mins. NYCQS 1694-1731/32, p. 485.

⁸ This advertisement appeared first in the *New-York Gazette* of April 19, 1728, and was repeated up to July 21, 1729.

⁹ Ms. Mins. Queens Co. Sess. 1722-1789, May 20, 1729, and Sept. 16, 1729.

intended, is (as their friend) desirous they may be careful of what large Bills they receive, *to wit*, 40 s. or 3 l. or from whom they receive them. This will immediately be put in Execution, if not stopt by timely Notice, and the Evil consequence being such, as the Innocent may suffer as soon or perhaps sooner than the Guilty. It is believed by the Author the Design is chiefly against Connecticut."

In printing this item Bradford added: "If the Author of the above Letter does know any thing of Counterfeit Bills of Credit as by his Letter he intimates, its expected that he will discover the same. And if he will apply to some Magistrate in this Province, and make a full Discovery of such Counterfeit Bills being made or that are making, he will be suitably Rewarded by the Government for such his Discovery."¹⁰

The Saturday morning after Bradford published the above he found a second message which he printed in his newspaper on Monday. Its text was as follows:

Your Recommending that Letter which was found under your Door Wednesday Morning, July the 16th, to the Press, has been of very valuable Service both to this Government, and other Governments; tho' the Author cou'd give no visible Proof that he had seen any thing, further than the Proposal of such and such Person to him. concerning the matter; and the Circumstantial Evidences that followed their Proposals. You say, it was expected the Author would give his information against them; which cou'd tend neither to the advantage or disadvantage of the about-to-be Offended, Accused, or Informer, more than render the Informer obnoxious, having no more (probable) to say than has been already here mentioned, which in the Author's Opinion, are not sufficient Evidences. However its desired you may in your next Paper also warn the Inhabitants of receiving 3 l. 40 s. or 30 s. Bills of Credit. I am much convinced the Design is already stop'd; however, I cannot see wherein a second Caution may be amiss The Author is desirous you may produce the Letter you first received, to none, save to such as can produce the True Tokens of it: which may happen to tend greatly to the Advantage of

¹⁰ *New-York Gazette*, July 21, 1729, p. 3.

Your Friend and Servant
The Author — — —

N.B. The former Letter has at the Bottom of it certain Marks, which (I suppose) are those that this Author calls the True Tokens of it. And according to his Request the two Letters shall be kept and ready to produce (in order to serve or save him — — —) when he produces the True Tokens (as he calls 'em).¹¹

Nothing further is known of the author of the letters or the counterfeiting to which he referred. Perhaps the warnings in the newspaper frightened the criminals and caused them to desist from their plans.

Soon after this, on August 3, the *New-York Gazette* contained this brief item: "A School-master on *Staten-Island* is apprehended and put in Prison there, for Counterfeiting the 30 s. and 3 l. Bills of *New-Jersey*. He did the whole with his Pencil, and so exact that the Difference was not easily discovered. He had passed about 10 or 12 l. before it was discovered." Unfortunately there seems to be no evidence as to the name of the teacher or his fate.

On October 17, 1730, an act was passed for striking bills of credit in the amount of £3,000 which were to be deposited in the treasury to be exchanged for shattered, torn and defaced bills. The act contained the same provisions about counterfeiting as were included in the earlier act of November 11, 1726.¹²

The next counterfeiter to be apprehended, however, had not been making bills but coin. He was a certain John Conner, who on November 30, 1730, was indicted for felony and on five other counts, the last of which was "for a Cheat in having Several ps of false coin with tools & Instruments about for the coining of such false coin." To all of these the prisoner pleaded not guilty. The next day he was tried in the Supreme Court, and the following persons were evidences for the King: John Vanhorne, James Vanhorne, Abraham Vanhorne, Thomas Wenman, Jacob Bratt, Evert Bratt, Mrs. Serjeant and Mrs. Zenger. The jury found the defendant guilty of the indictment of Mr. Van-

¹¹ *Ibid.*, July 28, 1729, p. 2.

¹² *The Colonial Laws of New York II*, pp. 648-655.

horne to the value of upwards of forty shillings and of the indictment of Mr. Zenger to the value of six shillings. At the same time they stated that the prisoner had no goods or chattels to their knowledge. Thereupon the court at once pronounced sentence that Conner "be hanged by the neck till he be Dead On Tuesday the twenty second of this Instant."¹³

Early in 1732 false dollars were circulating in New York City, for an item bearing the dateline "New-York, January 18" appeared in the *American Weekly Mercury* of January 25, 1732, and also in the *New-England Weekly Journal* of February 7, 1732. It read: "There has been a Suspicion of some Counterfeit Dollars being made here in this City; upon which, last Week, a special Warrant was issued, and one of the Persons suspected, is absconded; but no Proof appearing against the other, he is discharged; however this may caution People to take care what Dollars they receive."

Neither the pillory, carting, whipping nor the gallows put an end to counterfeiting. About the end of May, 1734, the *New-York Weekly Journal* reports:¹⁴ "one Thomas Copley, was apprehended here, on Suspicion of Coining and uttering false Dollars, when he found himself discover'd he flung 18 in a Purse over the Fence into a Neighbouring Yard, some that he kept loose in his Pocket he dropt into the Privy, the Purse was immediately found but it is supposed that those which he dropt into the Privy are not all found."

On August 3 Copley was arraigned in the Supreme Court and pleaded not guilty to an indictment for uttering a counterfeit dollar. His trial took place on August 5, and the witnesses for the King were Mr. and Mrs. Eastham, John Eastham and Jane McDermot, so it is probable that Copley passed the dollar to the Easthams. He was found guilty and the next day the court sentenced him to be set in the public pillory of New York City on August 7 from eleven in the morning until noon and on August 9 at the same hour to be given thirty lashes at the public whipping post and then be discharged, paying his fees.¹⁵

¹³ Ms. Mins. SCJ 1727-1732, pp. 244, 249, 250.

¹⁴ June 3, 1734, p. 3.

¹⁵ Ms. Mins. SCJ 1732-1739, pp. 115, 116, 122.

It is recorded that, on the same day that Copley was pilloried, Justice Cruger brought into Quarter Sessions eighteen false dollars which had been found on Copley, and these counterfeits were then broken to pieces in open court.¹⁶

A law of November 28, 1734, authorizing the striking of £10,000 of new bills, fixed the penalty of death without benefit of clergy for any who should alter, counterfeit, or knowingly pass altered or counterfeited bills of this emission.¹⁷ The next case to cause a stir in the colony, however, was one concerned with the counterfeiting of the ten shillings bills of an earlier emission, that of October 20, 1730. The governor and council on February 3, 1735, took cognizance of the situation by deciding to issue a proclamation. "It appearing to this board," read their minutes, "that severall of the ten Shillings bills made of that Denomination or vallue with a design to pass them as for the true & reall bills of Creditt of this Collony and that Severall of Such bills have of late been utter'd in payment which if not timely prevented may tend to the great Hurt and damage of many of his Matiës liege subjects within this Collony It is therefore Ordered by his Excellency by and with the advice and consent of his Matiës Councill that a Proclamation issue with a promise of a reward of fifty pounds to any person or persons who Shall discover the author or authors of the aforesaid false or counterfeit bills to be paid to Such person or persons upon the Conviction of such author or authors with a promise likewise of pardon to anyone of the accomplices that are privy to interested or concerned therein who Shall make Such discovery."¹⁸

The proclamation, voted by the council and dated February 5, was duly issued by Governor William Cosby and published in the *New-York Gazette* of February 11. It read:

It having been Represented to me, that several of the *Ten Shilling Bills of Credit* of this Colony have been lately counterfeited, or false Bills made of that Denomination, — — — with a Design to pass them as for the true

¹⁶ Ms. Mins. NYCQS 1732-1762, Aug. 7, 1734.

¹⁷ *The Colonial Laws of New York* II, p. 888.

¹⁸ Ms. Mins. Council 17, p. 37.

and real Bill of Credit of this Colony; and that several of such *False Bills* have of late been uttered in Payment, which, if not timely prevented, may tend to the great hurt and damage of many of his Majesty's Liege Subjects within this Colony. I have therefore thought fit with the Advice of his Majesty's Council to issue this Proclamation, hereby promising a Reward of *Fifty Pounds* to any Person or Persons who shall Discover the Author or Authors of the aforesaid False or Counterfeit Bills to be paid to the Person or Persons discovering the same, upon the Conviction of such Author or Authors. And I do likewise hereby Promise a Pardon to any of the Accomplices that were privy, aiding or assisting to, interested, employed or concerned therein, who shall make such Discovery as aforesaid.

The same number of the *Gazette* which carried the proclamation also gave the following account of one Joseph Johnson, the probable author of the counterfeits:

On Monday they [sic!] 4th Instant some false Ten Shilling Bills of Credit, Dated ☉ ☼ ☼ October xx ☼ 1730 were disovred [sic!] in this City and the Person that had taken some of these Counterfeit Bills, return'd them to one *Joseph Johnson* of this City, a Journey-Man Printer, who being told they were Counterfeit Bills, did not deny the passing of them, but said, I will change them, and gave good Money for them, being in an Agony and Trembled: This was about 7 at night, and about an hour after he began to pack up his goods, and in the dead of the Night removed them; and about 3 in the Morning went off in a Boat, and we hear he landed in the Jerseys with design to go to Philadelphia. This being known on Tuesday Morning, caused People to examine the Bills of Credit they had by them, and said Johnsons Wife change a pretty many of them. This gave a suspicion that said Johnson was the Maker as well as Passer of these false Bills. Upon this his Excellency the Governor sent to the Jerseys to have this Johnson apprehended, and also called a Council and by their advice issued a Proclamation, Promising the Sum of *Fifty Pounds* for the discovery of the Author or Authors of these Counterfeit *Ten Shilling Bills of Credit*, which are pretty difficult to be distinguished from the True Bills, the Signers Names being nearly Imitated, but upon a nice observation there is some difference, more Particularly in the Vanes of the Wind-mill, the Flour Cask, and the Letter N in the Arms of the City of *New-York*.

3*

The said Joseph Johnsons Wife was Indicted last Wednesday at the Quarter Sessions held for this City and County, for uttering several of said Counterfeit Bills, and is now in Goal in the *City Hall* of the City of *New-York*, for the same.

The first action taken against Johnson was by the Court of Quarter Sessions on February 4, whose minutes read: "Whereas Joseph Johnson Bookbinder is suspected to have Counterfeited Several Ten Shilling Bills current money of this Colony; and that he lyes Concealed in this City; ordered, the Constables attending this Court do Immediately make diligent Search for the said Joseph Johnson, & him to apprehend, and forthwith bring him before this Court to be Examined, and also to make diligent Search for such Counterfeit money."¹⁹

As the article in the *New-York Gazette* disclosed, Johnson made off for Philadelphia via the Jerseys. The last that was known of him is a paragraph in a letter from that city which was printed in the *New-York Gazette* of February 18, 1735, and read: "On the arrival of the Post and reading of yours, I took a Constable and went to the Lodging of Joseph Johnson, & the Person where he lodged told us, that so soon as the Post came by his Door, he went out to the Office, and had not seen him since, & on Sunday Morning I sent one of my Negros to his Lodging, and the Man told him that Johnson had not been at home that Night, so that I believe he is gone towards *Virginia*, for I hear that such a Man went over our upper Ferry on *Schoolkill*."

Johnson left behind him in New York a small son, also named Joseph, and on May 7 the Court of Quarter Sessions made following provision for the child:

Whereas Joseph Johnson aged six years the four and twentieth Day of January last past (son of Joseph Johnson late of this City, Book binder, who was lately presented in this Court for uttering a Great number of false Bills in the Room and stead of good Bills made current Money of this Colony for which he is fled from Justice and hath left the said Joseph Johnson his son, who is likely to become a Charge to the parish) It is therefore ordered, that the said Child Joseph Johnson be put out and

¹⁹ Ms. Mins. NYCQS 1732-1762, p. 47.

apprenticed by the Church Wardens to William Bradford of this City Printer untill he attain the Age of one and twenty years, the said William Bradford Covenanting to teach him the art and Trade of a Printer; to Read Write and Cypher, and the Expiration of the Term to Give him one good new suit of apparell, both linen and wollen from head to foot, besides his usual apparel; and During the Term to find and provide for him sufficient Meat, Drink and apparel, Washing and Lodging.²⁰

It has been seen that Johnson's wife was indicted in Quarter Sessions for uttering counterfeit bills. Catherine Johnson's case was transferred to the Supreme Court of Judicature, where on April 19 she was arraigned on an indictment for "a misdemeanour" and pleaded not guilty. Two days later Edward Mann and Garret Kettletas provided bail, each in the amount of twenty pounds, for her appearance at the next term in July. Her trial was held on August 1, and John Bell, Mr. Mann. Mr. Kettletas, Mrs. Bosch, and Mr. and Mrs. Bradford appeared as witnesses for the King. She was found guilty and on the following day was sentenced to receive twenty-one lashes on her bare back and then be discharged, paying her fees.²¹ It is likely that she had passed bad bills to John Bell and perhaps to others of the witnesses, and it may well be that her husband had been employed by William Bradford.

Catherine Johnson was later in serious trouble with the law: in 1766 she was convicted of stealing from one William Kirby a piece of check linen worth thirty shillings; on this occasion she pleaded her clergy, which was granted and she was burned in her left thumb in the presence of the court;²² again, in 1773, she was indicted for keeping a disorderly house.²³

It is highly probable that six counterfeit ten shillings bills which were burnt to ashes in the presence of the grand jury in Quarter

²⁰ *Ibid.*, p. 51.

²¹ Ms. Mins. SCJ 1732-1739, pp. 158, 162, 172, 173, 175.

²² Ms. Mins. SCJ 1764-1766, pp. 374, 377 and Ms. Mins. SCJ 1764-1767, pp. 135, 139; H. R. Parch. RR-189-K 9.

²³ Ms. Mins. SCJ 1772-1776, pp. 130, 133.

Sessions²⁴ had been passed by either Johnson or his wife. On September 30, 1735, it was ordered by a Court of Record held at the City Hall that the counterfeit bills formerly lodged with Robert Lurting, late Mayor of New York, and now in the possession of George Lurting, be by him delivered to the Clerk of the Court and that the clerk take an account of the bills when received.²⁵ There is, however, no indication of the quantity, denomination or date of issue of these bills.

One counterfeiter, Obediah Smith, was more fortunate than Catherine Johnson had been, for he escaped punishment through the negligence of a magistrate. At a Court of Oyer and Terminer and General Gaol Delivery held at Haverstraw for Orange County on June 4, 1735, the grand jury presented Michael Dunning of Goshen, one of the justices of the peace for that county, "for not apprehending one Obediah Smith who Produced to him Severall bills of credit of the Province of New York which the said Obediah Smith had altered from 40/ bills to £5 bills but ordered The Said Obediah Smith To Destroy them."²⁶

²⁴ Ms. Mins. NYCQS 1732-1762, p. 52.

²⁵ Ms. Mins. Mayor's Court 1731-1735/36, p. 530.

²⁶ Ms. Mins. Circ. I.

V

THE YEARS 1736-1744

At a meeting of the Governor and Council on April 15, 1736, the clerk, Fred Morris, laid before that body a dollar mold and seventeen counterfeit dollars which on an occasional search had lately been found in the Secretary's office. It was ordered that Messers Cortlandt and Horsmanden cause the mold to be "broken defaced & burnt" and the dollars to be defaced and broken to pieces in their presence, of all of which they were to make a report at the next meeting of the council.¹ It is quite possible that the dollars were among those which had been in the possession of Thomas Copley or they and the mold may have belonged to John Conner. Although these coins had apparently been seized at some earlier date, there is evidence that counterfeiting and passing continued in New York, for on November 2, 1736, three false bills, one of ten shillings, one of seven shillings sixpence, and one of two shillings sixpence were produced and burned in Quarter Sessions.²

According to a New York dispatch, dated May 3 and printed in the *American Weekly Mercury* of May 6, 1736, a few days before an Irishman had been seen in New York City with a quantity of counterfeit New Castle bills of the denominations of eighteen pence and of twenty shillings. The notes were quite new, the signatures were pretty well imitated, but the engraved part differed from that of genuine ones.

The *New-York Gazette* of March 8, 1737, informed its readers of the arrest and punishment of another counterfeiter:

Last week a man who goes by the Names of *Patrick Buttlr*, *John Lovell*, *Luce*, and several other Names, was taken up here for passing counterfeit

¹ Ms. Mins. Council 17, p. 85.

² Ms. Mins. NYCQS 1732-1762, p. 69.

Pistoles & Dollars, he is a Tinker, and in his Budget was found Tools & some Mettle for making such false Money. Being tryed he was convicted, and pursuant to his Sentence, on Thursday last he stood in the Pillory, on Friday he was whipt thorow the Town and banished out of the County. Some time ago he stole a Horse and a Mare in *Connecticut*, they pursued him to *Westchester* in this Province, and carried him back, where, according to their Law, they Whipt him, then he came back to *Westchester*, and there Marries a Wife, and has another in *New-England*. He meets with a poor Widdow in *New-York*, who had a suit of her Husbands Cloaths to sell, he pretends to buy them, and ask'd leave to put them on to try if they did fit him, & then ran away with them. Many other Thefts and Cheats, its said, he has committed.

The case of Butler is found in greater detail in the record of the tinker's trial before Mayor Paul Richard and Aldermen William Roome and Simon Johnson at the City Hall on March 3, 1737. The minutes read:

Patrick Butler A Wandring Tincker late of the Burrough of Westchester in the Colony of New York being accused before the Mayor and Aldermen aforesaid with uttering a false Counterfeit Dollar within this City & delivering to one Patrick Fitz Patrick three other counterfeit Dollars privately, desiring him to throw them away and with having been seen with ten other Counterfeit Dollars in his Custody and two Counterfeit half Pistoles and several Brass or Copper Rings unfinished and divers Sorts of Materialls fitt for Making Counterfeit Dollars and Counterfeit Gold whereby the [sic!] deceive and defraud his Majestys Liege People which might prove of dangerous Consequence to all his Majesties Liege People Inhabiting within this Colony and that the said Patrick Butler is a wandring Vagabond of evil fame and Reputation and a dangerous Person and has wandred about by divers Names (to witt) Patrick Butler. Samuell Gall. Oliver Lovewell and divers other Names & is guilty of many great misdemeanors agt his Majestys Peace &c; to which accusation the said Patrick Butler (which he owned to be his true Name) pleaded not Guilty, and in his defense offered nothing Material more than frivolous and Evasive Matters and answers, and it appearing to the Mayor and Aldermen abovesaid by the view of several of the said Counterfeit Dollars, two of the said half Pistoles and the several Materialls found upon him fitt for making Counter-

feit Dollars & Counterfeit Gold & Silver and by the evidence of divers credible Wittnesses of his having uttered one or more of the said Counter-Dollars, and greatly suspected of Making and Coining Counterfeit Dollars and Counterfeit hal[f] Pistoles and that he is a Wandring Vagabond of all which accusations the Mayor and Aldermen abovesaid upon full proof declare him the said Patrick Butler to be guilty of the accusations against him and of divers other Crimes and Misdemeanors agt his Majesties Peace & thereof to be Convict. it is therfore Ordered by the said Mayor and Aldermen (Pursuant to an Act of General Assembly of this Colony made in the sixth year of his present Majestys Reign Entituled An Act for the speedy punishing and Releasing such Persons from Imprisonment as shall Commit any Criminal Offences in the City of New York under the Degree of Grand Larceny. That the said Patrick Butler do stand in the Pillory of this City Immediately for one quarter of an hour and then be returned from thence to the Common Gaol the place from whence he Came. that the said Patrick Butler to morrow at Noon be carried from thence and fastened to the Tail of a Cart and be stripped from the middle upwards and then drawn round the Town on the south side of fresh Water and Receive upon his Naked back Nine and thirty Lashes by the Common Whipper and Return'd again into Custody and from thence be Conveyed from Constable to Constable to the Burrough of Westchester the place of his last legal Settlement and there be delivered to a Constable of the said Burrough. and that if the said Patrick Butler shall Return to this City within Six Months that he shall then be forthwith apprehended and again Receive such further Corporal punishment as the said Magistrates by Vertue of the act aforesaid in their discretion shall order and direct.³

The setting in the pillory and flogging of Butler was performed by the Public Whipper of the City of New York, Edward Brewen, who in this instance received fifteen shillings as his pay.⁴

On December 16 an act for emitting bills was passed containing the now customary provision of death without benefit of clergy for all convicted of counterfeiting, altering, or passing counterfeited or altered bills. There was added, however, the following clause: "...and

³ The minutes are bound with a volume of the Ms. Mins. NYCQS 1722-1742/43 (rough), pp. 343-344.

⁴ *Minutes of the Common Council of the City of New York* IV, p. 363.

tho Such Counterfeiting altering or knowingly passing counterfeit or altered Bills Shall be done out of this Colony, yet any Grand Jury within the Colony is hereby Impowered to present the Same & to Set forth in the Indictment the place where by their Evidence it appeared that the fact was Committed, which Indictment is hereby Declared good not withstanding that the place alleged be out of this Colony, and the petty Juries on the Tryals of all Such Forreign Issues Shall be returned from the Body of the City & County of New York, any Law useage or Custom to the contrary notwithstanding."⁵

In February, 1739, two New Englanders sought to have a plate made in New York City for printing New Hampshire bills of credit. The following account of their attempt was sent on March 5 to Mr. Bradford, with the request that he print it in his newspaper "for the benefit of the Publick, and as a Caution against Counterfeits." The item, which appeared in the *New-York Gazette* of March 6, read:

On Saturday the 24th of February ult. *Samuel Flud*, alias *Flood* came with one *Joseph Steel* to the House of John Hastier of this City, Goldsmith, and desired to be with him in private, who accordingly went into a Room, and *Flud* produced to him a Five Shilling Bill of *New Hampshire*, and asked him if he could engrave a Copper-plate for him like that who answer'd, That he could. *Flud* desired that he would be expeditious about it, and he would reward him handsomly; and said, he would call again on *Monday* Morning following, and so *Flud* & *Steel* departed. Whereupon Mr. *Hastier* went immediately to a Magistrate and acquainted him of the Case, who desired *Hastier* to give notice when *Flud* came to him again, that he might be apprehended. He accordingly came again, with the said *Steel*, to the Goldsmith on *Monday* Morning, and said, he was glad that he had met with a Work-man for his Turn; He brought a Ten Shilling *Rhode-Island* Bill, and bespoke a Plate for that also, promising the Goldsmith, that he should be well rewarded, he should have Money enough, and he would supply him with those Bills. But the Goldsmith having given Notice to the Magistrate, that those Men were at his House, they were immediately apprehended; and upon Examination there were found in *Steel's* Possession

⁵ *The Colonial Laws of New York* II, pp. 1028-1029.

eleven Counterfeit Five Pound *Rhode-Island* Bills, and afterwards two more of the same sort were discovered, which *Steel* had passed & changed that Morning. Upon their Examination *Flud* pretended to have come from *Andover* and *Steel* from *Middletown* in the *Massachusetts* Government; that they had met in their Travels at *Springfield* in *Connecticut*, and had been in pursuit of Iron-Works, and accordingly had taken a Lease of one in Partnership of one *Haywood* in the Highlands, on the Land of Coll. *Beekman*; and *Steel* being a Bloomer, and pretending to understand the business, *Flud* was to pay him 100 l. as a Consideration for letting him into Partnership with him, That *Flud* had accordingly paid him 50 l. in part of the 100 l. in the Bills now found upon him, which *Flud* denies. How this Case will turn out, as to *Steel* we cannot yet say; but they are both committed to Prison, and we hear they are like to remain till further Information can be had concerning them.

The Number of the Bills, and Names of the Signers, are as followeth, viz.

Two 5 l. Counterfeit Bills of Credit of *Newport*, dated 14th of *June*, 1725. Numb. 349.379. with the years 1728, 1731, 1733. signed *Daniel Updike*, *Jahleel Brenton*, *Geo. Goulding*.

Eleven 5 l. Counterfeit Bills of Credit, of *Newport*, dated 14th of *June*, 1725, Numb. 128, 340, 365, 470, 478, 750, 1740, 1786, 3478, 4318, 4870, with the years 1728, 1731. Signed *Jahleel Brenton*, *Geo. Goulding*, *Wm Coddington*, *John Wanton*.

N.B. These several Bills seemed all to have been rub'd over with a Pommace-stone.

Flood was brought before a meeting of the mayor, Paul Richard, the recorder, Daniel Horsmanden, and the aldermen, Gerardus Stuyvesant, William Roome, John Moore, Christopher Banker and Peter Jay, assembled at the City Hall on May 3, 1739. The minutes of this court read:

Samuel Flood the Defendant late of Andover in the Province of Massachusetts Bay in New England Carpenter was accused for that he . . . did attempt to prevail upon, and seduce Mr. John Hastier of this City Goldsmith to engrave for him Copper Plates whereby to make and Counterfeit five Shilling Bills & ten Shilling Bills Current Money of the said Province of the Massachusetts Bay & brought to him the said John Hastier a five shilling Bill and a ten Shilling Bill to engrave the said Plates by, in Order

to Counterfeit the same promising him amply to Reward him, and that he should make thousands &c. all which the said Mr. Hastier Informed a Magistrate of, & Caused the said Samual Flood to be apprehended, to which accusation the said Samuel Flood pleaded guilty and said he was now sensible of his error and hoped God would give him more Grace for the future &c: and the said Samuell Flood being Convict of the Crime and Misdemeanor aforesaid as well by his own Confession as by full Proof. It is therefore Ordered by the abovesaid Mayor Recorder and Aldermen... That the said Samuel Flood be carried from hence to the place from whence he came, and to morrow in the fornoon between the Hours of eleven and twelve from thence be Carried to the Public Whipping Post and there be Stripped from the Middle upwards and then fastened to the Tail of a Cart and drawn through the Principal Streets of this City and be Whipped nine and thirty Lashes on the naked back and then to be discharged from his Imprisonment And the said Samuel Flood is hereby further ordered to depart this City & Province in eight and forty hours thereafter on pain of suffering such further Corporal Punishment as the aforesaid act directs if he shall Return into this City within six Months.⁶

Joseph Steel was more fortunate in his treatment by the Mayor's Court, whose minutes, also for May 3, 1739, stated:

Joseph Steel born at Providence and late of Middletown in the Colony of the Massachusetts Bay in New England -- Labourer at the same time was accused before the Mayor Recorder and aldermen aforesaid of uttering two Counterfeit Rhode Island Bills each of five pounds knowing them to be false and counterfeit, and having found upon him eleven other five pound Counterfeit Rhode Island Bills, whereby he was suspected to be the Maker of the Counterfeit Bills. Notwithstanding which accusation no evidence appearing to the Justices aforesaid that the said Joseph Steel knew the said Bills to be false and Counterfeit (he declaring his Innocency and that he took them all in payment of the aforesaid Samuel Flood for good and lawful Money of Rhode Island.) it is therefore Considered by the Mayor Recorder and Aldermen aforesaid that the said Joseph Steel be discharged from his Imprisonment.⁷

⁶ Ms. Mins. of the Meeting of the Mayor, Deputy Mayor and Aldermen of New York City, 1733-1743, bound with Ms. Mins. NYCQS 1722-1742/43 (Rough), pp. 362-363.

⁷ *Ibid.*, p. 363.

Some two weeks earlier the Mayor's Court, on April 16, 1739, passed sentence on one Margaret Haynnie, convicted as a public cheat for knowingly endeavoring to utter and uttering a counterfeit milled Spanish dollar made of pewter. She was condemned by the court on the following Wednesday publicly to be given twenty-one lashes on the naked back at the public whipping post. Thence she was to be taken to the House of Correction in New York City, there to be kept at hard labor for three months and then to be discharged.⁸

The next counterfeits to appear in New York were imported from Ireland. A good account of the affair appeared in the *New-York Gazette* of June 25 and read as follows:

On Saturday last one Garrit van Voorhees was apprehended and committed to Goal for uttering three Counterfeit *Forty Shilling Bills*, Money of this Province, issued in the year 1737. He arrived in *New-York* in the *Snow Eagle*, Capt. *Jacobus Keirstead* Master from Dublin, the 21st Instant. He uttered 3 of these Counterfeit Bills on Friday last: The 3 Names of the Signers (*viz. Ja. Alexander, S. Johnson and Ja. Roosevelt*) seem all to have been wrote by the same hand (and a very bad Hand). The Impression looks some-what feint and obscure in comparison with the Original, and done upon much worse Paper. Upon the Examination of the above *Van Voorhees* he confessed, that he had those 3 Bills of *Samuel Mames*, who came Passenger in the same Vessel, and went on board a Sloop for Albany on Friday last, who (he said) had a Roll of them as big as the Small of his Leg. Upon which Information an Express was immediately dispatched for *Albany*, in order for his being apprehended, and to caution People against being imposed upon.

The governor and council were alarmed not only because of these false forty shillings bills but also on account of various other denominations which appeared in circulation and decided to issue a proclamation. The minutes of the council for July 3, 1739, read:

This Board being Informed that Several of the Bills of Credit of this Colony of the Denomination of ten Shillings and five Shillings Struck and Issued in the year 1734 were lately altered or forged so as to make the said bills appear of a much greater Vallue than what they were originally.

⁸ *Ibid.*, p. 361.

And the Board being likewise Informed that Several large parcells of the forty shillings Bills of Credit of this Colony Struck and Issued in the year 1737 were also Counterfeited or forged by Bills printed in Ireland and lately Imported, And that Several of those forged or Counterfeited Bills as well as of the forged or Altered Bills abovementioned have been uttered or past in payment to many of his Maties Subjects in this Province which Mischief if not timely prevented may tend to the great Damage (if not the utter ruin) of many of his Maties people within the same.

And the Board being Informed of the particular manner of forging or altering the above mentioned Bills of Credit of ten Shillings and five shillings each.

It is Ordered by his Honor by and with the advice and Consent of his Maties Council that a proclamation Issue notifying the particular Informations this Board has received concerning the same which are as follow, That the false or forged bills of five pounds were altered from a five shillings bill into that vallue by raising out the word (shillings) and in the stead thereof pasting on the word (pounds) in a print of different Types at the Top of the sd. false bills as well as in the body and at the foot of them In the true five pound bill the word (five) appears in letters placed at each corner of the Escutcheon or Flourishing in the Top thereof seperate and apart each from the other and in the Circle of the Castle in the middle of the said Flourishing the letter (V) which don't appear in the forged five pounds bills.

The forged ten pound bills were altered into that vallue from the ten shilling bills by raising out the word (shillings) and in the stead Thereof inserting the word (pounds) and at the Top of the said forged bills and in the body and at the bottom thereof the word (pounds) is pasted on of different Types from the rest of the bill, but in the true Ten pounds bills at the beginning of the flourishing at the Top the Letter (T) is placed & at the end of that line the Letter (E) In the under part of the Flourishing underneath the Letter (T) is the letter (N) and at the end the Letter (P) and in the middle of the Flourishing towards the bottom of it is the Letter (X) none of which marks are in the bills forged and as a further mark to distinguish the true bills of this Denomination from the false the Letter (S) appears in the false bills to be in the middle of the Escutcheon or Flourishing at the Top and it is further ordered by and with the advice & consent aforesd. that in the proclamation so as aforesd. to be Iss[ued] There be

Inserted a promise of reward of to a[ny] person or persons who shall discover the author or authors of the aforesd. forged Ten Shillings & five shillings bills of credit, or of the Counterfeit or forged bills of the aforementioned 40 s bills of Credit of this Colony or of the accomplice or accomplices to any or either of them to be paid on the conviction of such author or authors so discovered, with a promise likewise of pardon to any such accomplice or accomplices who shall make discovery of the author or authors of the sd. forged altered or counterfeited bills or any of them, And that in the proclamation so as aforesd to be Issued there be further Inserted a Notification that all persons who already may have received or hereafter may receive any of the aforesd. forged altered or Counterfeited bills or any bill of any Denomination whatsoever that they may suspect to be such that they Immediately Stop the said bills in their hands and bring them together with the person that uttered them in paymt. for any cause matter or Thing whatsoever before the next neighbouring Magistrate or Justice of the peace for the county where such utterance of the bills aforesd. shall happen to be made in order to be examined Thereon and further ordered that his majesties attorney General be directed to prepare a Drt. of a proclamation for the purposes aforesd. and lay it before the board for their approbation Thereof.⁹

The proclamation which appeared in the *New-York Gazette* of July 9, 1739, had been slightly revised by the Attorney General but the first part of it and the description of the forged bills is almost identical with the above wording in the minutes of the council. The proclamation, however, although promising pardon to accomplices who might inform, offered no reward. The final paragraph of this document, which was signed by Governor George Clarke and dated July 3, 1739, did not appear in the minutes of the council and read as follows: "And Whereas *Garrit van Vooris*, who was lately committed to the Goal of this City, for uttering several of the before mentioned Counterfeit *Forty Shillings Bills*, and caused a great Number of the same to be Printed in *Ireland*, and imported into this City, on *Wednesday* Evening last broke out of Prison, and has made his escape, There-

⁹ Ms. Mins. Council 19, pp. 21-24.

fore all Justices and other Peace Officers within any part of this Province, are hereby Required to make diligent Search within their respective Jurisdictions, and if the said *Van Vooris* can be discovered, that they cause him to be taken and committed to safe Custody in the Goal of the County wherein he shall happen to be apprehended, until further Order."

In spite of the governor's proclamation Van Voorhees seems to have remained at large. On August 8, 1739, the minutes of Quarter Sessions contain the following entry: "Whereas Garret Van Voorhees Mariner was lately Committed for feloniously Counterfeiting the Two pounds Bills of the Current money of this Province were taken upon him and by his Direction Thirty nine of those bills which were Counterfeit Signed for which Crime before Conviction the said Garret Van Voorhees broke Gaol and made his Escape and the said Counterfeit Bills being brought into Court by the Mayor of this City It is ordered by this Court that the said Counterfeit Bills be Immediately Destroyed and Burnt. Whereupon Thirty nine Six pound Counterfeit Bills which were Signed and Two hundred and Ninty Nine Two pounds Counterfeit Bills unsigned of the said Counterfeit Bill were in Open Court Consumed Destroyed & Burnt to Ashes."¹⁰

The wide variety of counterfeit bills in circulation at this time is shown by the fact that on the following day, August 9, Abraham Depeyster, Treasurer of the Colony, brought into Quarter Sessions false bills amounting to twelve pounds, fourteen shillings and six-pence. There were five of 2 shillings, one of 2/6, two of 5/, two of 3/6, three of 4/, five of 6/, four of 10/, two of 12/, one of 15/, two of 16/, and one of £3/2. At the same time Peter Jay produced two counterfeits of 10/ and two of 5/. All were burnt in the presence of the court.¹¹ Some two months later Christopher Banker brought into the same court other counterfeits, one of £10, one of £5, stopped from John van Zandt, two of 5/, and part of another five shillings bill.¹²

¹⁰ Ms. Mins. NYCQS 1732-1762, p. 102.

¹¹ *Ibid.*, p. 103.

¹² *Ibid.*, p. 107.

On October 25, 1739, a law was passed to continue the excise duty and currency of bills of credit emitted thereon, as well as to strike new bills to exchange for old ones unfit to circulate. In this act the duties of the treasurer of the colony were set forth as in the law of November 11, 1726, while those who should venture to counterfeit, alter or knowingly pass the new bills if so counterfeited or altered were to be subject to the same "Pains Penalties & Forfeitures" as prescribed in the act of December 16, 1737.¹³

The denominations of counterfeit New York bills circulating in the early months of 1740 were £10 and £5 and 10/ and 5/, as is revealed by court records: on February 6 Christopher Banker produced in Quarter Sessions four false bills formerly stopped by Mayor Paul Richard, one £10 bill, two of £5, and one of 10/; he also brought in one of 5/ which he had stopped and two more of the same denomination, of which one had been stopped by John Cruger and the other by John Moore.¹⁴ Again, on May 6, Banker produced in the same court two false bills of 5/ and Simon Johnson one of 10/,¹⁵ while the next day Peter Jay brought in a counterfeit 10/ bill.¹⁶ On the twentieth of the same month Judge Thomas Hicks produced four counterfeits in the court of General Sessions of the Peace of Queens County, held at Jamaica, three £5 bills, nos. 2733, 4504 and 2495, and one 10/ bill, no. 2686.¹⁷ The *New-York Gazette* of March 31, 1740, warned that counterfeit New Jersey bills were also passing about, namely those of 12/ and 14/. Later in the same year, on November 4, Simon Johnson brought into Quarter Sessions a false £5 bill, Alderman Pintard one of 5/, and the mayor a counterfeit milled piece of eight.¹⁸

In the court of General Sessions of the Peace of Ulster County, held at Kingston on May 8, 1740, a certain William Walles was indicted by the grand jury "for uttering falls money." It was ordered that

¹³ *The Colonial Laws of New York* III, p. 29.

¹⁴ Ms. Mins. NYCQS 1732-1762, p. 111.

¹⁵ *Ibid.*, p. 114.

¹⁶ *Ibid.*, p. 115.

¹⁷ Ms. Mins. Queens Co. Sess. 1722-1787, May 20, 1740.

¹⁸ Ms. Mins. NYCQS 1732-1762, p. 124.

process issue against the defendant and that he be in court at the next sessions.¹⁹ There is, however, no further record of his case.

On the twenty-third of the next month the authorities in New York City apprehended a counterfeiter for whose arrival they had been waiting. The *New-York Weekly Journal* of June 23, 1740, reported that affair as follows: "Friday last was committed to our Goal a Sailor who came over Cook to Capt. Gill, for having in his Possession several false and counterfeit *New Castle* Bills, to the value of about 1000 l. they were conceal'd in his Chest which had a false bottom. The Magistrates of this Place had received Advice of the Intention and as soon as the Ship Came in the Chests were all search'd and the Money found as above before the Man had endeavoured to pass any off. But the Bills we hear were not Signed."

The man arrested was Robert Jenkins of Salem, New Jersey, who had taken samples of genuine bills to Abraham Ilive, a printer of Southwark, and from him secured the counterfeits which he brought over in his chest. Ilive, after making the money, had reported the matter to the authorities in England and on December 28, 1739, had made a deposition about the matter before Andrew Stone and S. Buckley, presumably justices of the peace. The authorities in both New York and Philadelphia had been warned by the English government to be on the lookout for Jenkins. From New York he was sent to Salem, New Jersey, for trial.²⁰

No arrests for counterfeiting are recorded during the years 1741 and 1742, but false notes continued to circulate, especially those of five and ten shillings, as is shown by the minutes of Quarter Sessions. On February 4, 1741, Simon Johnson brought into court a counterfeit of 10/ and John Pintard one of 5/²¹ while William Roome produced a false bill of 5/ in Quarter Sessions on November 4.²² On August 4, 1742, the following counterfeits were produced in that court: one

¹⁹ Ms. Mins. Ulster Co. Sess. 1737-1750, May 8, 1740.

²⁰ Harrold E. Gillingham, *op. cit.*, pp. 15-19.

²¹ Ms. Mins. NYCQS 1732-1762, p. 127.

²² *Ibid.*, p. 134.

£1 bill and one 5/ bill by Simon Johnson; one of £1, one of 7/6, and three of 5/ each by John Pintard; one of £5, one of £4, and one of 5/ by John Moore.²³ On May 4, 1743, further counterfeits were brought into Quarter Sessions: one of £3 and one of 10/ by John Moore; one of £5 by Christopher Bancker; one of £1 by John Marshall.²⁴

The appearance of the £3 bill should be noted, for soon New York City was to be plagued with them and in this connection the *New-York Weekly Post-Boy* of August 1, 1743 reported: "Friday last a man was committed to the Jail of this City, for uttering a Counterfeit 3 l. Bill: And as there are several about the Town and the Neighbouring Provinces, People are desired to take Notice, that these Bills are not printed, but done by Hand, and all the Signers Names are wrote with one Pen, and the Letters are of the same Thickness: In our next we Shall endeavour to give our Readers a more particular Description of them. We are inform'd, that they are publicly made by a Man in the *Jerseys*, but no Notice has as yet been taken of him there."

The publisher of the *New-York Weekly Post-Boy* was as good as his word, for on August 8 his newspaper contained the following item:

In our last an Account was given of a counterfeit 3 l. Bill, and a Promise of a further Description thereof in this Paper; the Publick is desired to take Notice, that as they are done by Hand, they may all differ, and consequently no other certain Description can be given: However we shall give what is most remarkable in the Bill that is stopt: It is an Imitation of those dated the 10th December, 1737, signed S. Johnson, Ja. Alexander. A DPeyster. In the false Bill the Coat of Arms is larger than in the true Bills, as is also the Words THREE POUNDS both on the Top and Middle of the Bill; the three Stamps of Pounds in the true Bills are gradually sloping to the Bottom, but in the false Bill they are as small at Bottom as in the Middle, and they are higher up in the false Bill than the Words THREE POUNDS, whereas in the true Bills those Words and the Stamp are near on a Line.

²³ *Ibid.*, p. 140.

²⁴ *Ibid.*, p. 153.

4*

There apparently exists no definite indication as to the identity of the man committed to jail in New York about the end of July, so it is probable that the person was released and not prosecuted. The "Man in the Jerseys" referred to by the newspaper was a certain John Stevens, who was apprehended on or about October 16, 1743.²⁵ It is surely to Stevens that the following item in the *New-York Weekly Post-Boy* of December 26, 1743, refers: "A few Nights ago, a Person lately committed to the Jail of this City on Suspicion of counterfeiting our Paper-Currency, attempted to make his Escape from thence, in order to which he had got out of the Prison Window, and let himself down by Rope; but the Watch happening to discover him before he had quitted his aerial Posture, very kindly received him at his lighting, and civilly conducted him back to his Lodgings again."

Although the minutes of the Supreme Court of Judicature are lost for this period, James Alexander's brief of the case reveals the evidence used against Stevens, who was indicted at the January term of the court for counterfeiting three £3 bills of New York. The story is, in brief, as follows. Sometime in the spring of 1743 John Stevens purchased a horse from Daniel Pierce for £3/10 and gave his note for this sum. When Pierce came for payment he noticed that Stevens had a good deal of money and not only received his £3/10 but borrowed three £3 New York bills, giving Stevens his note for £5/10. Later Pierce paid out one of the bills to a storekeeper, who returned it as false and wrote "counterfeit" on it. At that Pierce took the bill to Stevens and complained that he had given him bad money. Stevens, swearing at the person who had written "counterfeit" on it, took the bill into his house and left Pierce at the door. Within a few minutes he returned and gave what he called a good bill to Pierce, who later concluded that Stevens had merely erased the word "counterfeit" and given the same piece of money back to him again.

Daniel Pierce now gave the bill in question to his parents, Silas and Sarah Pierce. Sarah soon paid it out to Doctor Samuel Walker,

²⁵ See the testimony of William Chetwood in the James Alexander Papers (NYHS), Box 46.

who claimed it was false and refused it, so that she took it back again. Doctor Walker further related the matter to Justice Nodiah Potter, who issued a warrant for the arrest of Silas and Sarah. When they, and eventually their son, had been examined by the magistrate, Justice Potter gave a summons against Stevens to Daniel Pierce for the value of the horse and also prepared a mittimus against him as a cheat in case he should appear. Stevens, however, shrewdly sent one Hepburn to appear for him at the trial, at which the jury found for Daniel Pierce in the amount of £9/16/11. The £3 bill which was the cause of Stevens' undoing was lodged with Justice Potter and subsequently endorsed "James Alexander Nodiah Potter No. 1." The second £3 bill had been passed by Daniel Pierce to Nathaniel Rolf, who returned it as counterfeit, and Daniel also delivered it to Justice Potter and it was endorsed "James Alexander Nodiah Potter No. 2." Daniel claimed that half of the third £3 bill was accidentally blown into the Passaic River as he was crossing it. It may be added that Sarah Pierce once told Stevens that she feared he had done her son a damage by paying him money of his own making and she claimed often to have heard that Stevens made money.

Before the case came to trial the Crown had other witnesses against Stevens. One Isaac Steele stated that on or about May 20, 1743, John Stevens of Ash Swamp came to his house in Piscataway. When Stevens entered the room there were several persons present and soon he took pen and ink and wrote this note: "Mr. Steele can you favour me with letting me have a Bill of one two or three pounds York Money." The two men soon withdrew to another room and Steele asked his visitor why he wanted a York bill. Stevens explained that he had lately lost his pocketbook with some thirty or forty pounds. He added that he had then "a large Quantity of Money by him which he could not finish for want of a pattern" and it was for this purpose that he desired a bill. Steele refused to accomodate him and told him that "if he did he should be as bad as he."

A certain John Wynantz recounted a tale which did him little credit. He went, he said, to Stevens and asked if he had money of

his make, whereupon Stevens answered in the affirmative and produced several bills, particularly one of 40 shillings. At this Wynantz asked if he had any to put out at interest, to which Stevens replied that he had none then but "could soon get enough." When Wynantz requested some of the bills, Stevens said that they were not yet finished. When his visitor inquired on what terms he let out money, Stevens informed him that "he trusted to Mens Generosity but several had acted like Knaves by him." Wynantz added that Stevens once gave him a 40 shillings bill of his make to see if it would pass, whereupon he showed it to one Robert North, who took it to be a good one. When Wynantz returned the bill to Stevens again, Stevens said he could do even better and that "no man in the Government could come near him."

Before long, however, the men of the government quite literally did "come near him," for on October 16, 1743, William Chetwood, Samuel Burrows, and several other persons, armed with a warrant, went to Stevens' house and took him in custody. In searching a chest there they found three pieces of paper with several marks on each in the shape of Bills of Credit of New York. These papers Chetwood took to Robert Hunter Morris, James Alexander and Elisha Parker, and the papers were endorsed with their names and those of Chetwood and Burrows and numbered on the back 1, 2, and 3. Robert Morris delivered them into the hands of James Alexander.²⁶

The conduct of Wynantz, by his own account, was most improper, to say the least, and others whose testimony was desired as evidence for the King at the trial were apparently apprehensive that they in turn might be prosecuted if they ventured into the Province of New York. The governor's council learned that several of the witnesses living in East Jersey had been frightened by Stevens' emissaries, who, it seems, said that Stevens would turn King's evidence "and impeach all those who should come to appear against him." The minutes of the council for July 17, 1744, which are concerned with this matter, read:

²⁶ James Alexander Papers, Box 46.

And it being of the highest consequence to this Colony that the said John Stevens should be prosecuted with the utmost Rigour of the law to deter others from the like pernicious practices for the future. His Excellency by and with advice of his Majesty's Council for this province was pleased to declare and doth hereby declare and assure all persons whatsoever who shall Come to give evidence agt the said John Stevens at his Tryal at the next Supreme Court shall be safe in their persons and freed from any Arrest, Imprisonment or punishment whatsoever for their being concerned with him the said John Stevens as an accomplice in the crime afd. and shall if required have their pardons under the Great Seal of this province for their offences committed as accomplices with him and also will be protected by the Supreme Court agt all other arrests whatsoever.²⁷ It was ordered that the Deputy Clerk of the Council give notice of this forthwith.

Stevens' trial was reported as follows in the *New-York Weekly Post-Boy* of August 13, 1744: "On Friday se'nnight last came on before the Supreme Court for this Province, the Trial of *John Stevens*, late of *Ash-Swamp* in *East New-Jersey*, for counterfeiting the Bills of Credit of this Province, and uttering them knowing them to be counterfeit; when the Jury, after a short Stay, brought in the Prisoner Guilty; and on Tuesday last, Sentence of Death was passed on him, and he is to be executed on Friday se'nnight next. *Tho' we hear he complains much of a Hurt in his Right Thumb, and it is thought he will have it cut off for fear of a general Mortification.*"

Stevens petitioned the governor for a pardon, but when the council had read the document the board was of the opinion that the petitioner had not set forth or offered anything which might entitle him to his Excellency's favor.²⁸ The *New-York Weekly Post-Boy* of August 27, commenting on Stevens' execution, stated: "He died penitent; but his Crime was too well known for him to have pretended to extenuate it by any Speech from the Gallows: and as it was thought he expected a Reprieve, it may reasonably be suppos'd he refrain'd making one till too late. *If some of our neighbouring Governments*

²⁷ Ms. Mins. Council 19, pp. 265-266.

²⁸ *Ibid.*, 19, p. 277.

would but act with equal Justice, it might be presumed, these Pests of Society would be something scarcer."

John Stevens was by no means the only money maker at work in 1744. On May 11 of that year the governor signed a warrant for £26/2 to George Joseph Moore for money paid by him on account of the prosecution of a counterfeiter of the bills of credit of New York.²⁹ It is possible that the criminal was Stevens, though the amount of money expended would suggest that Moore had pursued investigations of considerable extent and perhaps outside the province. Indeed, it was reported from Philadelphia on August 2: "A Fellow was this Morning taken up and committed to our Goal, for Counterfeiting the Bills of Credit of several of the neighbouring Governments: He was discover'd by Tom Bell,³⁰ to whom he apply'd for Assistance, not having finished all. There was about 17 l. of counterfeit New-York Money found upon him, some of which 'tis suppos'd he has uttered."³¹ A second dispatch from Philadelphia, dated one week later, threw further light on this matter. "Five or six Men and two Women," it read, "are apprehended and committed to our Goal as Accomplices in counterfeiting the New-York Five Shilling and Forty Shilling Bills, of the Year 1737, and Search is making after others concerned. The Bills are printed from a Plate, very ill engraved, and the Signer's Names to the Five Shilling Bills, are engraved and printed with the Bill. Their Mint was in a Log-house, in a remote Part of the Jerseys. The Discovery was first made by Tom Bell, to whom one of the Gang applied, endeavouring to engage him to be concern'd with them, and to assist in signing their Bills. They propos'd, if they met with Suc-

²⁹ *Ibid.*, 19, p. 240.

³⁰ Tom Bell was an accomplished rogue who saw the interior of many of the jails in numerous provinces. A dispatch from Charlestown, South Carolina, dated March 11 and printed in the *New-York Evening-Post* of March 25, 1745, described him thus: "He wears a light colour'd Coat, and a light Wig, and Walks very quick... He is a slim Fellow, thin Visage, appears like a Gentleman, talks of all Persons of Note as intimately acquainted with them, and changes his Name and Cloaths very often." Some idea of his rascality may be gleaned, for example, from numbers 8, 26, 29, 40, 49, 52, 78, 87, 94, and 114 of the *New-York Weekly Post-Boy*.

³¹ *New-York Weekly Post-Boy*, Aug. 6, 1744, p. 3.

cess, to counterfeit several other sorts of Money, of the neighbouring Provinces.’’³²

The operations of this gang may perhaps have been responsible for some of the following counterfeits which were brought into Quarter Sessions and destroyed: on August 8, 1744, John Cruger produced one of £5, one of £3, three of £2, one of £1, and one of 5/, while Abraham Mills brought in one of 5/;³³ on November 7, 1744, John Pintard produced one of £10, two of £5 each, one of 20/, one of 10/, and one of 5/, while John Marshall brought in two of £3 each, one of 10/, three of 5/, and a false Spanish piece of eight.³⁴

³² *Ibid.*, Aug. 13, 1744, p. 3.

³³ Ms. Mins. NYCQS 1732-1762, p. 170.

³⁴ *Ibid.*, p. 174.

VI

THE OBLONG GANG

In 1744 and 1745 a gang of counterfeiters were plying their trade in a district known as the Oblong or Equivalent Tract, which had been ceded by Connecticut to New York on May 14, 1731.¹ Their detection would seem to have started with a letter, dated August 18, 1744, from Governor Morris to Governor George Clinton of New York. It was concerned with some counterfeiters of the paper money and was apparently accompanied by several examinations and papers relating thereto, all of which Governor Clinton laid before his council on August 25.² Clinton also probably communicated his information about the money makers to Governor Jonathan Law of Connecticut, who on September 23 made this reply: "I have made the best Enquiries I could and have ordered the Justices in that Quarter of ye Government to enquire after the men you describ'd to me, as concerned in that wickedness about Bills of Creditt and to give me an Acct but as yet learn nothing."³ It was, indeed, not until the second of January, 1745, that Law gave Clinton further news. On that day he wrote: "I have lately received an Acct from one of our Justices near ye Western Borders of this Govt that he has committed one Andrew Nelson to Goal for putting off a Counterfeit 20^s Bill of Rhoad Island equal to 4 "wth w^m he found 72" of ye same sort and the place where this Wickedness is supposed to be carryd on is the Oblong and

¹ See Marshall H. Montgomery, "The Oblong Otherwise Known As The Equivalent Tract . . . and How It Came Into the Possession of New York State," *The New Canaan Historical Society Annual* III (1951), pp. 24-32 and E. Marie Becker, "The 801 Westchester County Freeholders of 1763," *New-York Historical Society Quarterly* XXXV (1951), p. 308 and footnote 58.

² Ms. Mins. Council 19, pp. 278-279.

³ *The Law Papers* I (Connecticut Historical Society Collections XI. Hartford: Connecticut Historical Society, 1907), p. 227.

it is possible that great Quantities of it are handed about by a confederated Gang of w^{ch} I thôt fitt to advise you. . .”⁴

On April 4 Governor Clinton placed before his council “several papers and affidavits relating to some persons living in Dutches County counterfeiting or suspected to counterfeit the bills of credit of the Colony of Rhode Island.” Upon consideration of the documents the board advised that some of the justices be required to make inquiry into this affair.⁵ Soon after this, on April 27, Governor William Shirley wrote to Governors Law and Clinton and revealed the identity of some of the Oblong Gang. In his letter to Law, Shirley wrote:

Having by means of one Robert Clarke the Bearer got Intelligence that John Scious [also spelled Scias or Syas], Joseph Boyce, and one Bosworth conceal themselves at and near a Place called the Oblong in New York Government & sometimes in your Government that borders thereupon occasions my present Writing to your Honour.

They are men that have been Guilty of enormous Crimes in this Government having been two of them tried and convicted at Salem for forging & Emitting Counterfeit Bills of Credit & upon praying the Same had the Benefit of their clergy allowed them since which upon perpetrating fresh Crimes of the like Nature they were taken & Committed to Salem Goal from whence they escaped & have for the most part with their Associates & others that joined, ever since continued the like Practices so as to be a Pest to this & the Adjoining Government.

It is expected they will be taken in New York Government or Yours & the Bearer who has been so instrumental in discovering them is resolved to Act every thing in his power for the taking & convicting of them & therefore what is in your Power for countenancing, protecting or Assisting him in the Doing thereof without Question will be complied with in your part. The Heads of this Confederacy have been bold and daring in their Villanies and have practised the same hitherto with so much success that it will be next to impossible to Suppress this great Mischief without Suppressing them and therefore what is in your Power to do towards it without Question will be complied with.⁶

⁴ *Ibid.*, p. 248.

⁵ Ms. Mins. Council 21, pp. 13–14.

⁶ *The Law Papers* I, pp. 284–285.

On November 27, 1744, one William Browning of the Oblong in Dutchess County made a deposition to the effect that sometime in October, 1744, he had received as good money from Elnathan Smith of Derby, Connecticut, some forty shillings bills of Rhode Island which proved to be counterfeits.⁷ The deposition was taken by Samuel Canfield, a justice of the peace of New Haven County, Connecticut, who proceeded to make further investigations. As a result he secured on January 12, 1745, the deposition of Elnathan Smith, who swore that he had received the Rhode Island bills in question in October from a certain Daniel Hunt of the Oblong in Dutchess County.⁸ On the same day Smith made a written statement relative to a conversation he heard in the Oblong between Austin Hunt and Squire Daniel Hunt. The purport of it was that Daniel Hunt had said that he would send one Joseph Plummer out of the way and then swear on him the counterfeit money they had put off and they would do well enough.⁹ In confirmation of this Nathan Birdsall, John Akins, William Russell, Abraham Wing, George Soule, William Brownell and Elisha Johnson on March 19, 1745, signed a certificate in which they stated that they had heard that Daniel Hunt had put off counterfeit money to one Elnathan Smith of Connecticut and that these bills then were in the hands of Justice Canfield of New Milford. They also had heard that Justice Daniel Hunt had been in company with Captain Austin Hunt sometime in the month of October, 1744, and that Captain Hunt was heard to ask Daniel Hunt what they should do about the counterfeit money they had passed in New York, where they had put off a considerable amount. They seemingly expected that the authorities would come after them but Squire Hunt said he sent Plummer out of the way and they would then swear the money on him. The seven signers of the document also stated that they understood that Plummer absconded about the same time and that they had never since seen him or heard what had become of him.¹⁰ Finally, Nathan Birdsall on March 30, 1745, signed a certificate in which he claimed, as far as

⁷ NY Col. Mss. 74, p. 205b.

⁹ *Ibid.*, 74, p. 206.

⁸ *Ibid.*, 74, 205b.

¹⁰ *Ibid.*, 74, p. 207.

the partially burned document can be read, that Daniel Hunt received money from Joseph Plummer for the purchase of a negro man; further that Hunt paid out ten counterfeit 20/ Rhode Island bills to one Smith from New England and later made oath that he, Hunt, had received the bills in question from Plummer.¹¹ The above documents are very likely the "several papers and affidavits relating to some persons living in Dutchess County counterfeiting or suspected to counterfeit the bills of credit of the Colony of Rhode Island" which Governor Clinton placed before his council on April 4.

The council had advised on that occasion that some of the justices be required to make inquiries into the affair. Jacobus Swartwout, Justice of the Peace of Dutchess County, at once investigated the charges against Daniel Hunt. On April 4 he secured depositions from William Browning,¹² George Soule,¹³ and Elisha Johnson,¹⁴ all of whom disclaimed any knowledge of Daniel Hunt's having made or passed false money. On the next day Justice Swartwout took the depositions of George Allen,¹⁵ and Abraham Wing¹⁶ to the same effect, as well as one from Peter Potts, who stated, however, that he had "heard" that Hunt had passed some counterfeits to one Smith.¹⁷ On April 7 the justice took the deposition of John Aikins, who denied any knowledge of Hunt's having made money but affirmed that he had heard of such a thing from William Browning.¹⁸ Swartwout also took a deposition of Augustine Hunt relative to counterfeit money, though the purport of the document is unknown, as it was destroyed by fire.¹⁹ William Russell, who on March 19 had signed the paper which implicated Daniel Hunt in counterfeiting and passing, on April 4 made a

¹¹ *Ibid.*, 74, p. 202.

¹² *Ibid.*, 74, p. 198b.

¹³ O'Callaghan, *Eng. Mss.*, p. 572. The document, NY Col. Mss. 74, p. 200, was burned.

¹⁴ O'Callaghan, *Eng. Mss.*, p. 572. The original, NY Col. Mss. 74, p. 199, was destroyed in the burning of the State House in Albany.

¹⁵ NY Col. Mss. 74, p. 200b.

¹⁶ *Ibid.*, 74, p. 200c.

¹⁷ *Ibid.*, 74, p. 198c.

¹⁸ *Ibid.*, 74, p. 201b.

¹⁹ O'Callaghan, *Eng. Mss.*, p. 572. The document, NY Col. Mss. 74, p. 198, was burned.

deposition before Swartwout in which he retracted all. He said that when the paper was brought to him he had signed it without having read it or having had it read to him and that he did not know Hunt's name was in it. He knew nothing against Hunt and expressed the opinion that the paper "was writ out of spight."²⁰ As a result of his investigation Swartwout on April 5 signed a certificate exculpating a number of inhabitants of the Oblong from having any knowledge of the charge made against Daniel Hunt for passing counterfeit money.²¹

The minutes of the governor's council, under the date of May 9, read thus: "His Excellency communicated to the Board some Examinations and Depositions Relating to some persons who have Counterfeited the bills of credit of this, and several other provinces, which persons lived near or about the oblong in this province."²² The governor doubtless produced a deposition made by Elnathan Smith on April 18, 1745, before Justice John Hubbard, relative to Daniel Hunt's passing counterfeit money.²³ Among the examinations and depositions there probably figured some, at least, of those taken by Justice Swartwout, who at a meeting of the governor's council on May 9 was called in and examined. After him Robert Clarke was also summoned and questioned "concerning the counterfeiting the bills of credit of this and several other provinces. And the examination being reduced into writing the same was sworn to."²⁴

It is possible to obtain a fairly comprehensive picture of Clarke's evidence. On April 27 Clarke was sent by Governor Shirley of Massachusetts with a letter to Governor Clinton in which it was stated that a band of counterfeiters was at work in the Oblong making bills

²⁰ NY Col. Mss. 74, p. 199b.

²¹ O'Callaghan, *Eng. Mss.*, p. 572. The document, NY Col. Mss. 74, p. 201, was lost through fire.

²² Ms. Mins. Council 21, p. 19.

²³ The document, NY Col. Mss 74, p. 208, is so badly injured by fire that the contents cannot be fully established. It appears from the remains that Smith had purchased a mare from one Brownell and paid for it with counterfeit bills which he had obtained from Daniel Hunt.

²⁴ Ms. Mins. Council 21, p. 19.

of the colony of Rhode Island. The leaders of the "Clan" were John Scias of "Derham," New Hampshire, Joseph Boyce of Salem, Essex County, Massachusetts, and one Bosworth, also of Essex County. The gang was passing off the money in great parcels for valuable effects. Scias and Boyce had been tried and convicted of counterfeiting and passing in Salem and had had the benefit of clergy on such conviction. They had later repeated their crimes, been recommitted to the jail in Salem but had broken out and made good their escape. Governor Shirley requested Clinton's help and protection for Clarke in everything needful to suppress the mischief.²⁵

On May 9 Robert Clarke (or Clark) of Uxbridge, Massachusetts, made deposition that he had been informed by one Israel Keith of New Sherburn, that Samuel Thompson, Joseph Plummer, one Bosworth, Justice Hunt and John Hunt were engaged in making counterfeit money.²⁶ At the same time Clarke deposited with the governor's council an affidavit which he had made and signed in Suffolk County, Massachusetts, on April 24, 1745. The document, part of which is badly burned, reveals that Clarke had become acquainted with Joseph Verry and Joseph Boyce of Salem, Massachusetts, John Scious of "Derham," New Hampshire, and their gang through their cheating him by means of a bond which he, Clarke, had had to pay. When he complained of their cheat, they "always Endeavour'd to make him one of their party, and to tempt thereto more effectually offered to Recompense him in their counterfeit bills for this Injury, and to Tempt him more effectually offered to give him counterfeit bills of Rhode Island & the New Jerseys to put of as he could, whereupon the Informant seem'd to Incline to them and their evil doings. . . ." Through pretending to be tempted by them Clarke was much with

²⁵ NY Col. Mss. 74, p. 196. The document is badly scorched and only partly legible. The first arrest of Scias and Boyce, for making £5 bills of Rhode Island, is probably that recorded in the *Boston Weekly News-Letter* of Nov. 24, 1738, and the second arrest for the same offence is probably that mentioned in the same newspaper of Sept. 27, 1739.

²⁶ O'Callaghan, *Eng. Mss.*, p. 573. The deposition, NY Col. Mss. 74, p. 203, was destroyed by fire.

them. They were constantly making counterfeit money and had plates to counterfeit the bills of Rhode Island and New Jersey. Clarke believed they were making plates to imitate the money of three or four other provinces. The money makers were constantly sending out to various places at a distance their emissaries who purchased horses, cattle and other things of worth to a great value. The gang expected that Clarke would soon accept a great quantity of false bills "to purchase things of Value with their allowance & so become a partner & associate with them in their evil practices."²⁷

When on May 9 these documents were read,

the Council was of opinion, and did advise that his Excellency should issue his orders to the Sherif and Magistrates of the County of Dutchess, to aid & assist Robert Clarke in apprehending John Scious & Joseph Boyce, and them and their papers strictly to Examine, and to convey them with their papers to some safe place in the Colony of Connecticut and also to apprehend such other persons, with their papers, as they shall have cause to suspect, and carry them before one or more of the Judges of the Inferior Court of Common Pleas for the said county; and that the said Judge or Judges be directed to examine the said persons, and their papers. And if they find any Counterfeit Bills or plates for Counterfeiting Bills, on such persons, or suspt. proof of their having Counterfeited, or uttered Counterfeit Money knowing it to be such, that they secure the said persons & papers and Commit the offenders to the County Goal, there to remain to be dealt with according to Law; that in doing Thereof they take to their assistance such persons as they shall think fit to Command, and that they transmit to his Excellency an account of their proceedings.²⁸

Justice Swartwout of Poughkeepsie apparently carried out further investigations, very likely concerned with the possible connection of Daniel Hunt with the counterfeiters. On May 24 he wrote a letter to Governor Clinton and enclosed proceedings had before him relating to counterfeit money passed in Dutchess County.²⁹ The governor,

²⁷ NY Col. Mss. 74, p. 204.

²⁸ Ms. Mins. Council 21, p. 19.

²⁹ NY Col. Mss. 74, p. 199 (the letter is almost completely burned) and O'Callaghan, *Eng. Mss.*, p. 572.

at a council meeting on May 30, laid before the board Swartwout's letter and the papers and depositions sent with it.³⁰ On June 10 Samuel Canfield, a justice of the peace from Connecticut, was brought before Governor Clinton and his council and examined concerning the account given him by one Ephraim Seely about some persons making counterfeit money.³¹ On the same day Clinton wrote as follows to Governor Law of Connecticut: "I Received Your favour of the Eighth Instant p Mr Samuel Canfield whose Deposition I have this Day taken and on advising thereon with his Majesty's Council for this province Find that there is nothing Sworn by Mr Canfield on which a Warrant can be regularly granted All that he knows being by Hearsay. But as it is probable Seely hath or soon will have a perfect knowledge of all the proceedings I think it would be best to Get him into Your Government & there take his Affidavit of what he knows of his own knowledge in the presence of some person to be sent here who can testify that he saw the said Seely sworn. And I shall thereon issue my Warrant for the apprehending the persons accused."³²

More is learned about the activities of Canfield in his attempt to bring the Oblong Gang to justice through the following letter written on June 19, 1745, by Governor Law to Governor Shirley (of which a copy or another very similar was undoubtedly dispatched at the same time to Governor Clinton):

Saturday night was Sennit a Justice of peace on our western Borders informed me of one who Contrived to Expose young Boyce and others to be taken in ye Very act of using ye Counterfeit plates in a Certain Swamp in ye Oblong on tuesday following but it b(e)ing out of this Gover^{mt} I sent ye Justice directly to Gov^r Clinton to Inform of ye Stratagem thinking nothing was wanting but an authority & assistance Sufficient would readily be had of our people within ten miles of ye Spot, he Shewed me two rhoad island xxs bills one with Divers mistakes in it ye other with these errors in ye plate rectified taken of ye day before, and ye Justice returned with a Letter ye Gov^r Signifying y^t ye Council were of opinion

³⁰ Ms. Mins. Council 21, p. 27.

³¹ *Ibid.*, 21, p. 28.

³² *The Law Papers* I, p. 302.

yt yr was no foundation for a warrant, ye Justice being able to Sware only to here Says but ye undertaker had found ye plates a 20^s Rh and a half a Crown Plate & a N.Y. plate of 20^s not perfectly Compleated, Press cloths and other implements &c: Sends them over ye Line, Decoys Boyce & one Hurlburt a partner into ye Edge of this Gov^{mt} Seizeth them & they are in N. Haven Goal Hurlburt Confesseth himself Guilty and accuseth 22 persons as Confederate with them Boyce^s father & Scious were transported through this Gov^{mt} to you some time Since.³³

On July 18 Jonathan Law again wrote to Governor Clinton to inform him that young Boyce and Hurlburt were safe in the New Haven jail and that a third person concerned in passing counterfeit had been committed and released on bail. The two Rhode Island plates and the New York twenty shilling plate, not fully completed, were in safe keeping. The twenty-two confederates accused by Hurlburt at his examination were for the most part in New York. "I sent Gentlemen," wrote Law, "to take ye Accusers Oath in order to comply with ye Opinion of your Council, but the penitent palliated ye matter so that he was not admitted for an Evidence. Our chief Justices are in doubt whether ye Matters of fact comitted in your Gov^t can be tryd here, so crave your Advice whether they shall be sent for Tryal in your Courts..."³⁴

Since the specialty of the Oblong counterfeiters was the money of Rhode Island, it was only natural that Governor Law should communicate to Governor Gideon Wanton of Rhode Island the recent developments. From this correspondence it is revealed that at some time between July 18 and August 21 both Hurlburt and Boyce had escaped from the New Haven jail and had not been recaptured, so that only the plates remained in the custody of the Connecticut authorities.³⁵ When Governor Wanton laid several letters of Governor Law before the Rhode Island assembly with the suggestion that the

³³ *Ibid.* I, p. 312. A letter dated June 26 from Clinton to Law (*The Law Papers* I, p. 321) reads: "I am glad M^r Canfield had ye good fortune in his return to secure the Counterfeit Plates & to send the two to Goal."

³⁴ *The Law Papers* I, p. 345.

³⁵ *Ibid.*, II, pp. 2 and 31.

province of Rhode Island give a reward to those who discovered the counterfeiters, the assembly refused and expressed the opinion that all charges arising from prosecuting and convicting persons guilty of this crime should be defrayed by the government where the crime was perpetrated.³⁶

Before September 7, according to the *Boston Evening Post* of September 10, 1744, Joseph Boyce and his associate, John Syas (or Scias or Scious), had been taken up and jailed in Boyce's home town of Salem, Massachusetts. They were, however, difficult to hold, for on the night of September 7 they broke out and fled. Sheriff John Wolcott promptly offered a reward of ten pounds, old tenor, for the capture of either one and described them as follows: "They are good looking strong able bodied Men; *Boyce* wore his own Hair, which was short and black, *Syas* wears a Wig or Cap. They were both burnt in the Hand about two Years ago, mark'd with the Letter T, being then convicted of counterfeiting Bills of Credit."

³⁶ *Ibid.*, II, pp. 93 and 64-65.

VII

THE YEARS 1745-1752

The Oblong Gang did not monopolize the attention of the New York authorities in 1745, as is shown by the following letter written on August 19, 1745, by Governor Clinton of New York to Governor of Connecticut: "You'll see by the Examination herewith that two persons named therein are Charged with Coining of Spanish money & passing the same in this City, and that the Father of one of them lives near New London: probably the Fellow may Stroll your way, For which reason I should be very glad You would make Strict Inquiry abt him, as the taking him would be of great service to the Colony. The Examint made the Discovery after he suffered Punishment here, as a Party concerned & is Still confined."¹

The affidavit of Peter Moore, sworn to before Stephen Bayard Mayor of New York, on August 16, 1745, read thus:

Examined Peter Moore who declareth that Bastian Killet and John Ryan came to him some time in March last at Bermudas and after some time drinking with them he told them he was going a privateering then told him he need not for that they would furnish him with money and that he should be worth £1000 in a few days gave him some p^s 8/8 and some Doubloons to pass that they had at least 3000 p^s of 8/8 and 50 Doubloons which they passed in the Island and left him with very little money After his Arrival here he met Killet who told him he now should be worth the money he told him of at Bermudas and bid him get a Chafin dish with Coal and a Bellows he then took a piece of Chalk and pounded it to Dust having made it moist and with a Mill Dollars made the impression in the Chalk mixing some Copper and Brass which they melted and Cast in less than an Hour about 150 P^s of 8/8 which he Glazed over with Quick Silver and gave the said Moore ten of them which he passed before he wrote to the Governor to Apprehend them. They being gone out of Town and Moore having re-

¹ *The Law Papers* II, pp. 28-29.

money he fell to making of P^s of 8/8 of pewter in the manner Killet had shown him; By what they told Moore one of them is gone to Brunswick and the other to Albany That Kellets Father lives between New London and Boston and is a Brazier and a Noted Man in that Country and when he parted with him last he had a large purse with Doubloons which he had made but with what Composition he Cannot tell but did promise to lead him into the Secret. This was a day before he waited upon the Governour.

Bastian Killet a young Man of full faced fair Complexion middle Stature wears a light Wigg a Red laced Jacket a blue Coat and sometimes a Callico Banyan.

John Ryan about five feet ten Inches high a fair full faced Man about forty years of Age Wears some times a light Wigg and sometimes a black one, wears a black Waist Coat & Breeches of Velvet and a blue Coat lined with Red.²

There was apparently a subsequent examination of Moore taken upon oath on September 9 before the mayor and one of the aldermen of New York City. It was read before the governor and council on September 12 and added the details that Killet and Ryan coined 150 false dollars at the house of a certain Patrick Phagan in New York City. Moore also asserted that the pair coined more than 400 false dollars and some doubloons in Bermuda while he was there.³ Nothing more is known of Ryan and Killet and it is probable that they were never apprehended.

Moore himself, as was reported in the *American Weekly Mercury* of August 15, 1745, was convicted in the Supreme Court on August 5 of passing counterfeit milled pieces of eight, knowing them to be such, and on August 8 he was given thirty-nine lashes at the public whipping post. On August 13 he was supposed to stand in the pillory (and doubtless the sentence was carried out) "and there part with some Memorials of his Honesty, as the just Reward of his Ingenuity."

Another case of the counterfeiting of Spanish coin was discovered when at a court of general sessions of the peace of Orange County held

² *Ibid.* II, pp. 26-27.

³ Ms. Mins. Council 21, p. 44.

at Goshen on October 31, 1745, one Jacob Maser pleaded guilty to an indictment for striving to pass brass pieces for Spanish pistoles. The Court imposed a fine of five pounds and costs.⁴ This amazingly light punishment was doubtless due to the fact that the last law imposing severe penalties -- imprisonment for a year and a day and forfeit of all goods and chattels -- for the counterfeiting of foreign gold and silver coin had expired in 1718. On the heels of the crimes of Killet, Ryan, Moore and Maser came a dispatch, dated Philadelphia, November 21, which was published in the *New-York Weekly Post-Boy* of November 25. It stated: "Several counterfeit Pistoles made of fine Brass, have lately appeared among us. They may be known by their extream Lightness; a Piece of Brass equal in Bulk to a Piece of Gold, not being quite half its Weight."

This situation, and above all the activities of Killet, Ryan, Moore and Maser, led the assembly to pass on November 29, 1745, a law fixing the penalty of death without benefit of clergy for those convicted of counterfeiting or passing certain foreign coins. The first line of the act read as follows: "Whereas Evil disposed Persons have Lately attempted to Counterfeit the Spanish French & Portuguese Gold Coins & the Spanish Pieces of Eight & other Spanish Silver Coins imported in to this Colony, To the great Hurt & Damage of the Inhabitants for the Prevention thereof for the future..."⁵ Thus the same penalty was fixed for the counterfeiting of either the bills of credit or foreign gold or silver as mentioned above.

The circulation of false bills also continued at this time, for on September 10, 1745, at a Court of Oyer and Terminer for Suffolk County four counterfeits, one of £3, two of 10/, and one of 5/, were presented and burnt in the presence of the court. 5 On May 7, 1746, the Mayor of New York City brought into Quarter Sessions three false bills, one of £10 and two of £5, while Justice Brandt Schuyler at the same time produced one of 5/.⁶

⁴ *The Colonial Laws of New York* III, p. 511.

⁵ Ms. Mins. Circ. I, Court of Oyer and Terminer for Suffolk County, Sept. 10, 1745.

⁶ Ms. Mins. NYCQS 1732-1762, p. 200.

In 1747 the authorities succeeded in taking up four members of a gang of counterfeiters. As early as March 21, 1747, Governor Law of Connecticut wrote to Governor Shirley of Massachusetts: "I would inform your Excellency That here has been taken some Counterfeit Plates among which are a 40^s or 8^l and a 9^d or 3^l Plate of your money and 'tis thôt great Use has been made of them. one man now in Irons (who has since delivered up the Plates) is secured in New haven Goal."⁷ It is quite possible that the person imprisoned in New Haven was the John Dexter mentioned in the *New-York Gazette, revived in the Weekly Post-Boy* of June 29, 1747. The newspaper account read:

Yesterday one *John Dexter* was committed to our Goal, taken up at Newhaven in Connecticut, to which place he had been followed from Dutchess County in this Province, on suspicion of having counterfeited Spanish Pieces of Eight and Pistoles, several of which, 'tis said, have been found upon him." The same paper of July 6, 1747, in an item headed "New-York, July 6," stated: "There are now no less than four Persons in the Goal of this City, taken up on Suspicion of counterfeiting Gold and Silver Coin, viz. John Bellemy,⁸ Samuel Shermer, Elias Haynes, and John Dexter; which is Death by a Law of this Province, if the Fact be prov'd against them. We hear, their Transactions were carrying on at Peek's Kill in Dutchess-County, where the first three were apprehended, the other fled but was follow'd, and overtaken at Newhaven, as mentioned [in our last.

The examinations of several persons in the jail of New York City (presumably the four mentioned above) relating to the counterfeiting of Spanish silver and gold coin and of the bills of credit of several colonies were laid before the governor's council on July 28, 1747, by

⁷ *The Law Papers* III (Connecticut Historical Society Collections XV. Hartford: The Connecticut Historical Society, 1914), p. 26.

⁸ John Bellemy (or Bellamy) about three years before had been suspected of counterfeiting Spanish pistoles. He had left his pocketbook at the house of one Edmund Robinson in Morris County, New Jersey, presumably in or near Greenwich. Thomas Dote, a constable, was sent to the house with other persons upon orders of a justice of the peace, and in Bellemy's purse found a counterfeit pistole, about eighty pounds of counterfeit Rhode Island money, and a false New York five shilling note. The above information is contained in the deposition made by a certain Stephen Barnes, a blacksmith, on October 7, 1747, before Chief Justice John Kinsey in Philadelphia. The document is now in the possession of Mr. J. N. Spiro of Maplewood, N. J.

Justice Horsmanden and read by the board. Thereupon the council ordered that the names of the several persons concerned therein who did not reside in the Province of New York should be notified to the several governors of the neighboring provinces in which the said persons resided in order that they might speedily be apprehended and brought to justice.⁹ Since the minutes of the Supreme Court of Judicature for this year are lost and since no further newspaper account is to be found, the outcome of the case is not known.

Soon the people of New York City were plagued by the appearance of false bills of New Jersey. *The New-York Gazette, revived in the Weekly Post-Boy* of October 26, 1747, warned: "The latest Impression of the *New-Jersey* Fifteen Shilling Bills, is discovered to be counterfeited, a description of them will be given in our next." And the next issue of the newspaper did carry the promised description of the 15/ denomination of the emission dated July 2, 1746, the counterfeits of which were "just beginning to appear." The description read:

The Paper of the Counterfeits is thin and smooth, and when look'd thro' in the Light, appears fair and free from Knots: The Paper of the true Bill is thicker, rougher, and when look'd thro' in the Light, appears clouded and uneven: The Counterfeits are wholly done from a Copperplate, the Back as well as the Foreside; the true Bills are printed from common Types, in the common Printing-Press: The three Crowns by the Side of the Arms in the Counterfeits are unlike each other, and more round than those of the true Bills, which are like each other, and the same with thus ☉: The Flowers above and below those Crowns in the true Bills the same with this ☿ in the Counterfeit they are nothing like: The Value of the Bill just over the Signers Names in the true Bills, is the same Characters as here XV SHILLINGS. ‡ in the Counterfeits the Letters of the Word *Shillings* are larger. There are many other Marks by which they may be distinguished, but these, we hope, will be sufficient at present.

Within the same month two other denominations of the New Jersey currency had been counterfeited and the *New-York Gazette, revived in the Weekly Post-Boy* of November 23 warned:

⁹ Ms. Mins. Council 21, p. 263.

OUR Readers are cautioned to beware of new Counterfeit *Six Shillings Jersey Bills*; they are in Imitation of those dated July 2, 1746. are done wholly from an engraved Copper-plate, whereas the true Ones are printed by common Types. Besides other Marks, the Counterfeits may be known by the S in the Word SILVER being remarkably larger than the Rest of the same Word, thus (SILVER) and the s in the Word *Grains* very badly made.

There is likewise a great deal of Difference in the Border of Flowers round the Sage Leaf on the Back; the flourishing being more open, loose and irregular, in the Counterfeits than in the true Bills; and the Strokes that represent the Fib[er of the] Leaf, not appearing so naturally rough as they do in the true Bills. The Letter S in the Word SIX, at the Top of the Counterfeit Bill, is much smaller than the IX, and the Letters in the Word SHILLINGS, at the Top of the Counterfeit stand very crooked.

A *Twelve Shilling Jersey Bill* of 1733, is lately discovered to be counterfeited also, and is done from a Copper plate, but may be easily distinguished by its Brightness, when compared with any of the true Bills.

Naturally enough the New Jersey government was alarmed, and Governor Jonathan Belcher in a speech to the general assembly of that province on November 19 took cognizance of the situation. "I have reason to believe," he said, "there is a Knot, or Combination of villainous Persons, that are making a Trade of forging the Bills of this Province; And this Matter well deserves your speedy Care and strict Enquiry, as it strikes at the very Vitals of your Currency, and so must nearly affect not only your Commerce, but your other Estates also."¹⁰

Two of the counterfeiters were seized at the beginning of December in New Jersey and committed to the Bergen County jail. One gave his name as Dr. Joseph Bradford, born in New London, and the other as John Lummis, born in Narraganset, a blacksmith. When they were first apprehended, one of them made an excuse to go out and when he had gone behind a barrack he was seen to stick something in it. A search was promptly made, and a large bundle of bills was found, 102 of fifteen shillings, of which thirty-six were signed, 142 of twelve

¹⁰ *The New-York Gazette, revived in the Weekly Post-Boy*, Dec. 6, 1747, p. 1.

shillings, of which eight were signed, and eighty-nine of six shillings of which twenty-seven were signed. All were done from copper plates and were of the type of counterfeits recently described in the *New-York Gazette, revived in the Weekly Post-Boy*. Some of the six shilling bills imitated those dated 1743 and others those dated 1746. *New-York Gazette, revived in the Weekly Post-Boy* of December 1747, commented: "'Tis th'ot, these are some of the Gang mentioned in the Governor's Speech in this Paper; and 'tis hoped those Pest Society, may now meet with the just Reward due to their knave's Ingenuity." Joseph Bradford was, as will be shown later, only an agent used by one James (or Joseph) Bill.

The following year it would seem that persons at Dover in the province of New York were counterfeiting the Massachusetts bills for on July 21, 1748, Governor Clinton communicated to his council a letter dated July 14 from one John Chandler to Governor Shirley of Massachusetts on the subject. Thereupon the Chief Justice informed the council that he would issue a warrant for the arrest of suspected persons at Dover.¹¹ There is, however, no evidence as to the results. The bills which were counterfeited were very likely in imitation of the Massachusetts thirty shillings New Tenor notes, for the *Boston Weekly News-Letter* of March 24, 1748, warned against such false bills and gave information how to detect them.

Early in March, 1749, the Massachusetts authorities issued a proclamation for the arrest of two counterfeitters, one of whom was Isaac Jones and the other Joseph (or James) Bill, alias Joseph Bradford. The men were caught in a wood near Weston, Massachusetts, and brought as far as Watertown, where they made their escape. The plates from which they had been striking off Connecticut bills were found upon them and were taken to Boston.¹²

In Pennsylvania also the government was concerned with false money in circulation, and the *New-York Gazette, revived in the Weekly*

¹¹ Ms. Mins. Council 21, p. 311.

¹² *The Boston Weekly News-Letter*, Sept. 29, 1748, p. 2, March 16, 1749, p. 1, March 24, 1749, p. 2. *The Boston Evening-Post*, March 20, 1749, p. 2.

Post-Boy early in January printed a warning about counterfeit doubloons passing in Philadelphia,¹³ while in November of 1750 the same newspaper published a warning concerning counterfeited Pennsylvania half crown bills passing in Philadelphia and which were thought to have been made in Germany.¹⁴ New York, too, was not rid of counterfeits, for on August 8, 1750, the following false bills were brought into Quarter Sessions and destroyed: one of £10, no. 555, two of £5, nos. 349 and 245, and one of £2, all of which were produced by the recorder; one of £10, no. 481, three of £5, nos. 4499, 2792 and 663, three of £2, nos. 4384, 598 and 139, and one of 7/6, no. 1315, were brought in by the grand jurors.¹⁵ On November 7 the grand jurors produced in the same court other counterfeits, one of £4, no. 1722, two of £2, nos. 2535 and 143, and two of 10/, nos. 180 and 1436. These were all burnt, and on the following day the court also had destroyed a counterfeit £3 bill, no. 8556.¹⁶

Some of the counterfeiting which was being done at this time was the work of three rogues, Jonathan Woodman, Samuel Dunston (or Dunsten) and James (or Joseph) Bill, who has been previously mentioned and who used the alias of Joseph Bradford. The story of the apprehension of the first of them was given as follows by the *New-York Gazette, revived in the Weekly Post-Boy* of July 29, 1751:

Friday last one *Jonathan Woodman*, a Native of Narraganset was committed to our Jail, for uttering Counterfeit *Twenty Shilling* Bills of this Colony, in Imitation of the Impression dated December 10, 1737: He confesses he has passed ten of them: They are done on a Copper-Plate, and may be easily distinguished by those who know the Difference of Copper-Plate from common Printing-Letters: But that the unskill'd may not be impos'd on, it is noted, that the two xx^s near the Arms, are not of an equal Size in the Counterfeit, but are in the True, and the Word N.YORK in the Flourish, has no Point between the N. and YORK, as in the true Bills;

¹³ *The New-York Gazette, revived in the Weekly Post-Boy*, Jan. 2, 1749, p. 2.

¹⁴ *Ibid.*, Nov. 19, 1750, p. 2.

¹⁵ Ms. Mins. NYCQS 1732-1762, p. 279.

¹⁶ *Ibid.*, pp. 282-283.

also the Word EBORAC in the Arms, is EBORAO in the Counterfeit, and the whole Bill appears more irregular than in the true Bills: -- He says there are two others concerned with him, one of whom was in Town when he was taken up, but immediately made off, and went by the Name of Dr. *Dunsten*, whom he believes to be the Signer of the Bills, and 'tis probable he has passed more of them, these two being just on going home when apprehended. There was found on him a Number of *New Hampshire Four Pound Bills*, which is supposed to be counterfeit, and which the Man himself confesses he believes to be so. The other Person concerned, he says he does not know, but as he heard from his Accomplice, from whom he says he had the Bills; but as he often prevaricates in his Stories, we must leave it to Time to unriddle this Mystery of Iniquity: -- Supreme Court comes on here To-morrow. (*It seems those who come for the better peopling of the Colonies, are not the only Folks that deserve hanging.*)¹⁷

One accomplice of Woodman was quickly taken. "Tuesday last," reported the same newspaper of August 5, 1751, "one *James Bill*, alias Bradford, a Narraganset Man, was apprehended near Second-River in New-Jersey, and committed to our Jail, as one of those concerned with *Jonathan Woodman*, mentioned in our last, in counterfeiting the Twenty Shilling Bills of Credit of this Province: The other called Dr. *Dunsten* it not yet taken. 'Tis said, this *Bill* had been taken up and committed to Jail in *Hackinsack* a few Years ago, for uttering counterfeit *Jersey Bills*, from whence he made his Escape; but tis hoped he will now meet with the Reward of his Ingenuity. Their Trials, we heard, are put off till next Term."¹⁸

The grand jury brought indictments against Woodman for counterfeiting twenty shilling New York bills and four pound New Hampshire bills and for passing those of New York; against Dunsten for counterfeiting twenty shilling New York bills and passing them; against Bill for counterfeiting and passing twenty shilling New York bills.¹⁹ Neither

¹⁷ See also the *New-York Evening Post*, July 29, 1751, p. 3.

¹⁸ See also the *New-York Evening Post* of Aug. 5, 1751, p. 3, where Bill's first name is given as Joseph.

¹⁹ Ms. Mins. SCJ 1750-1751 (Rough), pp. 53-54 and Ms. Mins. SCJ 1750-1754 (Engrossed), p. 66.

Woodman nor Bill, however, came to trial, for Woodman decided to cheat the hangman. The *New-York Gazette, revived in the Weekly Post-Boy* of September 9, 1751, stated:

On Friday morning last, *Jonathan Woodman*, the Person who was committed to our Goal some Time ago, for uttering counterfeit Twenty Shilling Bills of this Province, was found hanging dead in his Garters at the Grate of his Prison; — — — 'Tis said he had been under Terrors and Anguish of Mind for some Time past. which his Confederate has been pleased to say, was occasioned by his Guilt for impeaching of him, and is now in Hopes, as there is no other material Evidence against him, that he will get clear, tho' he appears to have been the greatest Rogue of the two; However that be, this Woodman from the first Commitment, apprehended he must die; and therefore is supposed to be either so charitable, as to think to save the Hangman his Labour, or else hung himself to save his Life: and 'tis a Pity, the other would not follow his Example; as all such Pests of Society ought to be look'd on as scarce worthy of the Labour of a Hangman. — — — There were two Men in the same Jail with him, who were asleep when he did it, and knew nothing of the Matter 'till they found him hanging in the Morning.²⁰

Bill was apparently released for want of material evidence. Their accomplice, Dr. Dunsten, had made off for New England. The *New-York Evening Post* of August 19, 1751, printed a dispatch from Weathersfield, dated August 3, which read: "The Person that is mentioned in the New-York News to have uttered counterfeit Money, viz. Four Pound Bills of New Hampshire and One Pound or Twenty Shilling Bills of New-York, is pass'd through this Colony, and utter'd or pass'd them in many Places, and has been pursued, but as yet hath escaped: He is a tall slim Man, wears red plush Breeches, a black Wig, and is bound to Haverhill, and perhaps the Publick being informed of this may be of some Benefit: he goes by the Name of Doctor *Dunston*."

Dunsten was taken up in New Hampshire and tried, as a dispatch from Portsmouth in that province, dated October 25, 1751, informed

²⁰ See also the *New-York Evening Post*, Sept. 9, 1751, p. 2.

the public. It appeared in the *New-York Gazette, revived in the Weekly Post-Boy* of November 4, 1751, and read:

At the Superior Court of Judicature now sitting at Portsmouth, in and for the Province of New-Hampshire, one Samuel Dunsten has been tried for uttering counterfeit Bills of Public Credit on said Province, and acquitted by the Jury; since which Trial a false Plate of a Twenty Shilling Bill, and one of a Two and six Penny Bill of said Province have been found and in the Presence of the Judges of said Court been defaced. *This is probably the Doctor, that was concerned with Jonathan Woodman and James Bill, late in our Jail, on suspicion of counterfeiting Bills of Credit; and it could hardly be unknown to the People of Portsmouth; since the Account of his flying from hence was in the Boston Papers, but as those Governments are soon to have no more Paper Money, they may tis like, be little concerned about it.*²¹

It would seem that the persons who succeeded in arresting Jonathan Woodman and Bill were Robert Benson and Abraham Mills, for on August 23, 1751, the Common Council of the City of New York ordered the mayor to pay Benson £14/12/- "being so much money by him Disbu[r]sed to Abraham Mills for horse hire and their Trouble and Expences in pursuing & apprehending the Criminals who Late^y Counterfeited the bills of Credit of this Colony."²² There remained however, work enough for those who would undertake to ferret out counterfeiters, for both false bills and coin continued to appear. Thus on May 7, 1752, the Mayor of New York delivered into Quarter Sessions two counterfeits, a £1 bill, no. 245, and a 10/ bill, no. 1184,²³ while some three weeks later one James McBride, a soldier in the fort at New York City, was committed to jail on suspicion of counterfeiting Spanish pieces of eight. It appears that about a year before a false dollar and several pieces of metal had been found in his possession. At the time he fled but finally turned up again in New York City and

²¹ See also the *Boston Weekly News-Letter*, Oct. 31, 1751, p. 2 and the *New-York Evening Post*, Nov. 4, 1751, p. 3.

²² *Minutes of the Common Council of the City of New York* V, p. 345.

²³ Ms. Mins. NYCQS 1732-1762, May 7, 1752.

was arrested.²⁴ There is no indication that he was convicted, and he may perhaps be the James Smith M^cBride who was found guilty in 1755 of having murdered a certain Isaac Winter, who had served together with him in the New Jersey regiment, and for whom a pardon was recommended.²⁵

On October 2, 1752, the *New-York Gazette, revived in the Weekly Post-Boy* warned against false pieces of eight circulating in New York City. "On Thursday last," it reported, "a New-Jersey Man, tall and pockfretten, paid Ten Pieces of Eight in a Shop in this City; and on Friday it was discovered that three of them were counterfeited: The Bulk, Impression and Letters are so well imitated, that one would scarcely suspect them; they ring almost as other Pieces of Eight; the Colour nearly but not quite the same; but on cutting they are soft almost as Pewter, and on weighing, they are 2s. lighter than Pieces of Eight; Which are the only sure Means we know of discovering them. This is published to put People on their Guard, and that if possible the Authors of this Villany may be discovered."

At about the same time altered money appeared, for the same newspaper of October 9, 1752, warned: "Last Week a Jersey One Shilling Bill was pas'd in this City for Six Shillings; the Word *One* being cut out, and the Word *Six* put in, and the other Parts of the Bill so defac'd, as not to be distinguish'd at first Sight, but may easily be known on close Examination: As there may possibly be more of the same sort People are caution'd to beware of them."

In October of this year a strange case concerned with the passing of, apparently, counterfeit coin is found in Orange County, where on the last Tuesday in the month one Peter Bakcas appeared as a defendant before the Court of General Sessions of the Peace. The next day the grand jury delivered a presentment against him for passing brass and other base metal for good gold. The defendant appeared and, when the indictment had been read, pleaded guilty and submitted himself

²⁴ *The New-York Gazette, revived in the Weekly Post-Boy*, June 1, 1752, p. 2.

²⁵ O'Callaghan, *Eng. Mss.*, p. 647 (see NY Col. Mss. 82, pp. 38-39) and Ms. Mins. Council 25, p. 126.

to the mercy of the court, which promptly sentenced him to a fine of forty shillings and costs and to stand committed until they were paid.²⁶ As the law passed on November 29, 1745, fixed the penalty of death without benefit of clergy for anyone convicted of knowingly passing false Spanish, French or Portuguese gold coins, it would almost seem that Bakcas must have been passing uncoined piece of base metal for gold and hence received the comparatively trifling sum of two pounds.

²⁶ Ms. Mins. Orange Co. Sess. 1727-1779, pp. 96 and 98.

VIII

THE PERIOD FROM 1753 TO JUNE, 1761

Counterfeiting in the period from the beginning of the year 1753 through almost the first half of 1761 is, with the exception of the affair of the false British halfpence, which will be considered separately, very largely concerned with Dutchess County, though there was some counterfeiting elsewhere. Thus, on May 1, 1753, in Quarter Sessions in New York City the mayor produced four false bills, one of £10, no. 79, one of £5, no. 210, one of £2, no. 4344, and one of £1, no. 2542, all of which were destroyed before the court.¹

On May 16, 1753, action was taken against two suspected counterfeiters in Dutchess County, Joseph Boyce, who had been one of the Oblong Gang, and one Joseph Hix. On that day at a meeting of the General Sessions of the Peace of Dutchess County Boyce, "on Indictment for passing Counterfeit Money in Imitation of Rhode Island Bills," appeared and was bound over to the next Supreme Court. He gave bail in the amount of £100, as did his surety, Samuel Shearman of Poughkeepsie, in the like amount. On the same day it was ordered that Joseph Hix, "on Indictment for Passing Counterfeit money," should remain in jail until the next Supreme Court.² As there is no mention of them in the minutes of the General Sessions of Dutchess County or in those of the Supreme Court of Judicature, it may be surmised that Boyce forfeited bail and decamped and that Hix either escaped or was released, although the cases may have simply been dropped without record being made.

A grand jury, headed by one Noah Gillett, on June 8, 1753, presented three persons, Benjamin Chase, Jacob Mace and one "Solevin," alias James Shiffel or Benjamin Parlon, for stamping Rhode Island

¹ Ms. Mins. NYCQS 1732-1762, May 1, 1753.

² Ms. Mins. Dutchess Co. Sess., Liber B, May 16, 1753.

money and forging the signers' hands, all on the evidence of a certain Samuel Southworth.³ On July 31 Attorney General William Kempe informed the Supreme Court that these three men, all described as labourers and late of Poughkeepsie, had committed fraud by making, having in their custody and passing in Poughkeepsie false paper bills of Rhode Island.⁴ On Saturday, January 19, 1754, in the case of the King versus Benjamin Chase, Jacob Mace et al., the Supreme Court minutes read: "The Sherif of Dutches County returns Cepi Corpus on motion of Mr. Attorney General and the Defendant having indorsed his Writt ordered that his appearance be entered and that he plead in twenty days or Judgment."⁵ At a meeting of the same court on October 24, 1754, it was ordered that Chase and Mace "plead in twenty days or Judgment" and Mr. Alsop, who appeared for Chase, entered a plea of not guilty for his client.⁶ With this entry their cases disappear from the minutes of the Supreme Court and it may with great probability be assumed that they simply were not prosecuted. Sullivan had, for the moment, escaped capture and, indeed, was not apprehended until 1756, though he and other counterfeiters had by no means suspended their operations, as is shown by the variety and number of false bills in circulation.

The *New-York Gazette: or, the Weekly Post-Boy* of January 28, 1754, specifically warned of counterfeit £2 bills in these terms:

The Publick are caution'd to beware of Counterfeit Forty Shilling Bills, that have been lately brought and issued in this Province; they are artfully done, and Persons of small Attention can not readily apprehend the Fraud: For the Benefit of unwary People we give the following Description of the false Bills differing from the true Ones, *To wit, First*, They are all dated *December 10, 1737*, marked *lx. s.* and are signed, Peter Schuyler, Peter Jay, Stephen Wood, *Second*, 1737 in the False, seems something larger than in True. *Third*, And so is the Letters *lx. Fourth*, the *ll. 1*, under the

³ H.R. Parch. 189 A 4.

⁴ H.R. Pleadings K 957. Cf. Ms. Mins. SCJ 1750-1754 (Engrossed), p. 274.

⁵ Ms. Mins. SCJ 1750-1754 (Engrossed), p. 349.

⁶ Ms. Mins. SCJ 1754-1757 (Engrossed), p. 87.

Arms, seems in the 111. in False something more crooked, and the Strokes of the 11, smaller than in the True Bills. *Fifth*, In the Arms of the true Bills, EBORAC. is with a C. and in the False it is a G. *Sixth*, lx f. after Number, is not so plain in False as in True. *Seventh*, In the Flourish on left Hand, after N.YORK, between the two A.A. There is a Mark in false Bills thus O. unclosed at the Top, and in True, O is closed. *Eight*, First and last Signers Names is pretty well imitated, but *Peter Jay's* Names is ill done.

These false forty shilling bills appear, with other denominations, among those produced during 1754 in Quarter Sessions. On February 6, 1754, the following counterfeits were brought into that court: one of £3 and one of 20/ by the Mayor; nine of 20/ by Alderman Benson; one of £5 by Alderman Cortlandt; one of £10, three of 40/, and one of 20/ by Alderman Livingston.⁷ On May 8 Mr. Livingston brought in one of £1 and one of 40/, while Alderman De Peyster produced one of 10/.⁸ Again, on August 7, the Mayor brought into Quarter Sessions three £3 bills and two of 40/, and at the same time Justice Francis Filkin produced one false bill of 40/.⁹

This prevalence of £3 counterfeits called forth, as might have been expected, this warning in the *New-York Gazette: or, the Weekly Post-Boy* of August 12, 1754: "Counterfeit THREE POUNDS BILLS are now passing amongst us, and without some Nicety in the Comparison, they will not easily be found such. -- They are of the Emission of 1746. Signers Names PAUL, RICHARDS, CORNELIUS VAN-HORNE, ROBERT LIVINGSTON, jun. They are of a very indifferent Impression, and a considerable Variation appears in the Writing of the Name *Paul Richards*. In the Crown immediately over the New-York Arms, can be discover'd a great Difference from the true Ones. In the Word BILL, will be found a great Space between the B and I, a very little between the I and L and none at all between the LL; but in the good Ones there is an equal Space between each. The

⁷ Ms. Mins. NYCQS 1732-1762, Feb. 6, 1754.

⁸ *Ibid.*, May 8, 1754.

⁹ *Ibid.*, Aug. 7, 1754.

Whole is judg'd to be rais'd Work in Metal, whereas the true Ones are proper Printing Types."

On September 16 the same newspaper gave a further description which read:

False Three Pound Bills are again creeping in amongst us: They are dated the 10th of May, 1746, and are signed by *Paul Richard, Cornelius Vanhorne, Robert Livingston, jun. 1st.* The two Barrels in the false Bills, on each side of the Vanes of the Wind-Mill, appear not to be full hooped, but a blank Space is left in the Middle of each Barrel; whereas in the true Bills, Barrels appear to be full hooped. 2d. The Top of Figure 7 in 1746, is somewhat higher in the false Bills than the other Figures: In the true Ones they are even. 3d. The Letter s. after 60, under the Arms, is more crooked, and not so plain as in true Bills. 4th. The Line at the Bottom of the false Bills, is much thicker than in the true Bills. 5th. On the Back of the false Bills the Print can hardly be perceived; but in the true Bills the Print can be plainly seen. We noticed these Bills to the Public a few Weeks ago.

The *New-York Mercury* of the same date gives the same five distinguishing marks but adds two others, which are numbers 4 and 5 in the seven items it indicated. Point 4 reads: "In the false Bills, in the lower Part of the Flourish under the Arms on the Left Hand Side, there is a Mark \oplus where the Stroke in the Middle goes quite through: But in the true Bills the Stroke in the Middle goes but half way," and point 5, "After the above Mark in the false Bills, are two Flourishes something like ω which are closed: But in the true Bills there is a Space between inclosed. something like \cup ."

It has been shown that eleven false 20/ bills were produced in Quarter Sessions at its meeting on February 6, 1754. It is then small wonder that the governor's council took up the matter on March 18, when the governor informed the board that John Livingston had delivered to him two letters containing information about counterfeit twenty shilling bills of New York. One letter, dated March 10, from G. Saltonstall to Mr. Livingston, inclosed a false twenty shilling bill taken from the same plate with four that had been passed in New London to Captain Durfey by one Nathaniel Key. Key, the letter

said, had been arrested and searched, and nineteen more bills of the same denomination and date were found in his pocket. The other letter, dated March 7, from Matthew Greswold, Attorney General of Connecticut, to Captain Durfey, advised that it was necessary to send one of the said twenty shilling bills to New York in order that the difference between that and the true bills might be pointed out.

The advice of the council on this matter was that the Governor "desire the Governor of Connecticut would be pleased to give directions for the said Key to be sent here, in order for his Tryal, assuring him that any request of the like nature will be readily complied with on the part of this Government. But if the said Key should be tried there (where if convicted he can only receive corporal punishment) and it should appear on Examination that he can and will discover any accomplices, That his Honour in this case be pleased to desire that Government to send the said Nathaniel Key hither to be examined as an Evidence against such accomplices, with Promise on this Condition of his receiving his Majesty's most gracious Pardon."¹⁰

On the following day Governor James De Lancey wrote in accordance with the advice of his council to Governor Roger Wolcott of Connecticut:

I have received information that one Nathaniel Key had passed in your Colony four, 20/bills counterfeits of the bills of this Province to Capt Durfy for which he was apprehended, and now is in Goal; upon my communicating this information to his Majesty's Council here, they advised me to apply to your Government that the said Key might be sent to this Province to receive his Trial here: I do therefore request the favor of you, that you would be pleased to order him under a sufficient guard to Byrom River, where the officers of this Province shall receive him, in order to his Tryal or if he can & will discover the counterfeiter & his accomplices that he may be a witness. I promise you that in a like case, I shall give orders that offenders against the Credit of your Currency shall be sent to you.¹¹

¹⁰ Ms. Mins. Council 23, pp. 166–167.

¹¹ *The Wolcott Papers* (Collections of the Connecticut Historical Society XVI, Hartford: The Connecticut Historical Society, 1916), p. 438.

Wolcott on April 5 sent the disappointing reply that he had sent at once to New London in order to have Key dispatched to New York but had received a letter from Colonel Saltonstall that Key had some time before broken out of prison and escaped.¹²

This same spring of the year 1755, in the last week in March, three young lads were committed to the City Hall in New York on evidence of their making and passing counterfeit Spanish one shilling pieces.¹³ The three youths, Christopher Barnwell, Richard New and John Van-heusen, were indicted by the grand jury on April 18, 1755, for counterfeiting ten pieces of Spanish silver money. All three on the following day pleaded not guilty and were tried on April 22, Barnwell and Van-heusen for counterfeiting the coin and New as an accessory before the fact. The witnesses for the King were John Van Derhoope, August Van Cortlandt, Simon Johnson and John Cruger, while William Taylor, Joseph Northrup and Sarah M^c Kenen gave evidence for the defendants, all three of whom were acquitted and discharged, paying their fees.¹⁴

An idea of the various denominations of counterfeits circulating in New York City in 1755 is afforded by the record of those brought into Quarter Sessions. On May 6 Alderman Cruger produced three bills of £3 each and one of 10/; on August 6 the Mayor and Alderman De Lancey brought in three 40/ bills, nos. 13652, 5661 and 1690, one of £5, no. 1530, and one of £3, no. 1544; on November 5 the justices delivered into court fourteen false bills, one of £5, five of £3, four of £2, one of 20/, and three of 10/.¹⁵

The counterfeits of the emission dated May 10, 1746, had apparently become so numerous that the treasury office of the province in New York City on October 24 issued a notice, published in the *New-York Gazette: or, the Weekly Post-Boy* of October 27, 1755, directing all

¹² *Ibid.*, p. 439.

¹³ The *New-York Gazette: or, the Weekly Post-Boy*, March 31, 1755, p. 3.

¹⁴ Ms. Mins. SCJ 1750-1756 (Rough), pp. 235, 237, 239, 240 and Ms. Mins. SCJ 1754-1757 (Engrossed), pp. 146-147, 150-151.

¹⁵ Ms. Mins. NYCQS 1732-1762, May 6, Aug. 6 and Nov. 5, 1755.

persons who had any bills of the above mentioned emission to bring them to the Treasury by the next November first "in order that they may be cancelled, and where other Bills will be given in Exchange for them."

Early in 1756 one of the most hardened and villainous counterfeiters in Colonial New York, one Owen Sullivan, at length fell into the hands of the authorities through the initiative of Cornet Eliphalet Beacher of New Haven, Connecticut. Sullivan, it will be recalled, had been indicted, along with Chase and Mace, in 1753 for making, having in his custody and passing false bills of Rhode Island. The first notice of him is found in the *Boston Weekly News-Letter* of August 31, 1749, which reported: "Last Monday Night, *Owen Sullivan*, and *John Tyas*, of Roxbury, were apprehended and committed to Goal here, for uttering counterfeit *Ten Shilling* Bills of this Province of the last Emission, about 30 of which were found upon them. *Sullivan* lately come from Louisburg where he had been convicted of uttering counterfeit Dollars; and in searching his Chest, there was found a Mould for casting them, as also Ink, and other things used in printing off a Copper Plate, and Pieces of Paper whereon attempts were made to imitate the Hand-Writing of the Signers of the Bills: The Bills were done off very black, and may be easily distinguished from the true ones by comparing them, especially the backside." Both prisoners were convicted at the assizes held in Boston and on September 13, 1750, Sullivan stood in the pillory for two hours and received twenty stripes, while Tyas was pilloried for one hour and given fifteen lashes.¹⁶

Sullivan next seems to have transferred his activities to Rhode Island, for the *Boston Evening Post* of October 9, 1752, printed a report from Providence that "Sullivan, a well-known Engraver, has lately had both his Ears crop'd, and been branded on both his Cheeks with the Letter C, for counterfeiting the Bills of Credit of that Colony."

The punishment was severe, and Sullivan temporarily dropped out of the limelight but, it would seem, retired to the Oblong in Dutchess

¹⁶ The *Boston Weekly News-Letter*, Sept. 13, 1750, p. 2 and the *New-York Gazette*, revived in the *Weekly Post-Boy*, Sept. 17, 1750, p. 2.

County, New York, where he continued to counterfeit the money of various colonies. On September 4, 1754, his name again appeared in the press, when the *Boston Weekly New-Letter* of that date remarked: "We hear from Newport, Rhode-Island, That several Persons have been taken up, and tried there last Week for counterfeiting the £16 Bills of that Colony, four of which were found guilty of passing them, knowing them to be such, and that they had confessed, that the noted Sullivan was the Engraver of the Plate; that they had struck off about 50,000 £. old Tenor, but spoiled 10,000 £. in signing them: A great Reward was offered to apprehend Sullivan, but was not taken." Lieutenant Governor De Lancey of New York was notified in a letter from Peter Bours of Newport that Sullivan, for whose capture the General Assembly of Rhode Island had offered a reward of £400, was at a place called the Oblong in New York, apparently under the alias of John Pierson.¹⁷

Nothing, however, seems to have been accomplished by the government of New York, but one Eliphalet Beacher of New Haven, "having in the course of his private business, travelling forth & back through the country, made some Discoveries of a Villainous Company of men near to the Western parts of this Colony [Connecticut], who made a trade of Counterfeiting the publick bills of Credit on this Colony, & being Desirous to break up a nest of so great Mischief, applied to this & the neighbouring Government of New York for help to Effect the Same."¹⁸

Beacher's application to the Connecticut General Assembly in session at New Haven on January 21, 1756, resulted in the following vote of that body:

Whereas it hath been sufficiently made appear unto this Assembly, that a certain person known by the name of Johnson, *alias* Sullivan, living at or near a place called Dover in Dutchess County in the Province of New York, is a person of ill fame and strongly suspected of having made and

¹⁷ O'Callaghan, *Eng. Mss.*, p. 614.

¹⁸ Conn. Archives, Crimes and Misdemeanors, Series 1, Vol. 5, p. 16: memorial of Beacher to the General Assembly, dated May 7, 1756.

counterfeited great quantities of the bills of credit of this Colony, and also the bills of the Provinces of New York, Rhode Island and New Hampshire, and uttering and passing the same, and that one Elisha Morehouse, one Hunt, a brother of Ambrose Hunt, two other persons whose names as yet unknown, are accomplices with said Johnson in making and passing said bills: Resolved by this Assembly, that in case Eliphalet Beecher, of New Haven, shall undertake and use his best endeavours to take and apprehend the persons abovenamed, or any of them, and accomplices, he, the said Eliphalet Beecher, shall have all his reasonable expences and charges borne and paid by this Colony, and for his further encouragement in the service aforesaid, the said Eliphalet Beecher shall have the same reward (for each of said persons and their accomplices by him taken and tendered to justice and convicted of counterfeiting or passing any of the bills of credit of this Colony) as is already provided by the law of this Colony.¹⁹

Beacher had secured on December 29, 1755, a warrant signed by James De Lancey, Chief Justice, and two other justices of the Supreme Court of Judicature of New York. Armed with this and the support of the General Assembly of Connecticut, Beacher seized one Samuel Griswold, living at Dover in Dutchess County and Jacob Mace, his accomplice, and brought them before Messers Haviland and Humphrey, justices of the peace of that county, who on February 10 and 11 examined the suspected counterfeiters. The justices, according to Beacher, were uncooperative. They made him give recognizance to prosecute the prisoners and refused, without sufficient proof of the crime, to give him a warrant to take Griswold and Mace to Connecticut. At the time Beacher found it impracticable for him to bring the necessary evidences before the justices, so the prisoners were released on bail of £50 each to appear and later procure bail for their presence at the Supreme Court to be held in Poughkeepsie in May. The justices required Beacher to pay all costs of the examination and process before them.²⁰

¹⁹ *The Public Records of the Colony of Connecticut* X (Hartford: Press of the Case, Lockwood, & Brainard Co., 1877), p. 455.

²⁰ Conn. Archives, Crimes and Misdemeanors, Series 1, Vol. 4, doc. 265, pp. a b: deposition of Beacher before Justice Jabez Hamlin on Feb. 16, 1756.

After having heard Beacher's complaint as set forth in his deposition taken by Justice Hamlin, the Connecticut Assembly concluded that "many Difficulties have attended his prosecuting said affair with Success for want of the Encouagement & assistance of the Civil Authority in said County." The legislators therefore asked the governor of Connecticut to write to Sir Charles Hardy, governor of New York, requesting him "to give all such further & necessary authority & directions to the said Eliphalet Beacher, or to other proper persons, as may enable him or them to apprehend such Suspected persons & Secure them in the Government, or send them into this, for Trial according as the Cases may appear to be Cognizable by the Courts there or here."²¹ The treasurer of the province was ordered to pay Beacher £10 in lawful money and a similar amount in proclamation bills to enable him to prosecute those suspected of counterfeiting.²²

By paying them and promising them a share in rewards, Beacher secured the assistance of Eliphalet Beacher, Junior, for 27 days, of John Thomas for 20 days, of Howkiah Thompson for 15 days, of Captain Josiah Starr for 16 days, of Daniel Starr for 8 days, of John Beecher for 18 days, of Caleb Beecher for 6 days, of Eleazar Berry for 6 days, of Gabriel Dickson for 15 days, of John Dickson for 18 days and of Timothy Delivan for 24 days. In each case the assistants were mounted. Beacher himself worked on the case for 95 days. The costs for which he was reimbursed by the Province of Connecticut came to £134/3.²³ The efforts of Beacher and his associates were at last crowned with success, for a dispatch, dated New Haven, March 20, which was published in the *Boston Weekly News-Letter* of April 1, 1756, read: "On Wednesday last was brought to the Goal in this Town, Sullivan, alias Johnson, the famous Money-maker, who was detected and taken in Dutchess County, on Hudson's River, about 120 Miles above New York, in that Government

²¹ Conn. Archives, Crimes and Misdemeanors, Series 1, Vol. 4, doc. 266.

²² *The Public Records of Connecticut* X, p. 462.

²³ Conn. Archives, Crimes and Misdemeanors, Series 1, Vol. 5, p. 18.

by the extraordinary Address and Resolution of Cornet Eliphalet Beecher."

The *New-York Gazette: or, the Weekly Post-Boy* of March 29, 1756, gave its readers the following account: "Wednesday last was brought to this City, under a strong Guard from New-England, and committed to our Goal, one Sullivan, alias Johnson, a Man notorious for counterfeiting and passing counterfeit Money of the New-England Colonies, as well as, lately, some of this Government. He was taken near the Line, between Dutchess County and Connecticut, about 120 Miles from this City, where 'tis said a large Gang of Villains have harboured for a considerable Time past, few of which but have a Crop or a Brand-Mark upon them, as it is a Sort of Disgrace for one reputed honest to be seen among them: 'Tis now hoped this Gentleman will at last, meet with the Reward due to his Labour."

On April 24, 1756, the prisoner was set at the bar and arraigned upon an indictment for counterfeiting the bills of New York, to which he pleaded not guilty.²⁴ He was tried in the Supreme Court, presided over by De Lancey, Chambers and Horsmanden. The witnesses for the King were David Sanford, Nehemiah Lyon, Jonathan Miller, Edward Hugford and Eliphalet Beecher. The jury²⁵ found Sullivan guilty and that he had no lands, tenements goods or chattels, except a saddle valued at five pounds, and April 29 he was sentenced to be hanged between the hours of ten and twelve in the forenoon of May 7.²⁶

The execution, however, did not take place as scheduled, partly because of the efforts of Sullivan's friends or accomplices. The *New-York Gazette: or, the Weekly Post-Boy* of May 10 gave this story of the

²⁴ Ms. Mins. SCJ 1754-1757 (Engrossed), p. 253 and Ms. Mins. SCJ 1756-1761 (Rough), p. 10.

²⁵ See H.R. Pleadings K 900 for the list of persons summoned to serve on the jury.

²⁶ Ms. Mins. SCJ 1754-1757 (Engrossed), pp. 255, 261 and Ms. Mins. SCJ 1756-1761 (Rough), pp. 18-19. The *New-York Gazette: or, the Weekly Post-Boy* of May 3, 1756, gives two of his aliases as John Livingston and John Brown and affords the information that the New York bills which he counterfeited were those emitted in 1737. See also the *New-York Mercury* of May 3, 1756, p. 3.

delay: "*Owen Syllavan*, . . . the forty thousand Pound Money-maker, who was to be executed on Friday last pursuant to his Sentence, for the Want of a Hangman was respited until Saturday; but the Gallows being cut down on Friday Night by Persons unknown, and Jack Ketch, Esq; being still wanting, his Time was further prolong'd to this Day, when he is certainly to make his exit."

The same newspaper on May 17 thus described the last moments of the condemned counterfeiter:

Owen Syllavan, before he was turn'd off on Monday last, declared, That some Years ago he struck off near Twelve Thousand Pounds of Rhode-Island Money, and passed above Sixteen Hundred of it in one Day: --- That of the New Hampshire Currency he made Ten or Twelve Thousand Pounds: --- Of Connecticut Cash he struck off about Three Thousand Pounds: --- And of the New-York Currency he printed large Sums of four different Emissions; the last of which was the Bills signed *Oliver De Lancey*, *John Livingston*, and *Isaac De Peyster*, and dated so late as March 25, 1755; to do which he had four Sets of Accomplices, who, he said, printed and passed other large Sums at Times unknown to him: And that he left the several different Plates and Stamps with his Confederates, all of whom he allow'd deserv'd the Gallows as well as himself; but would not betray one of them, or be guilty (as he term'd it) of shedding their Blood: --- Soon after which he took a large Cud of Tobacco, and turning round to the People said, *I cannot help smiling, as 'tis the Nature of the Beast*. And being ask'd, for the Benefit of the Publick, of what Denomination the Bills were which he printed of the New-York Money, answered, *You must find that out by your Learning*; and so died obstinate.

The *New-York Mercury* of the same day stated that Sullivan "approached Death with the greatest Resolution imaginable, confessed his Sentence was just, and wished his Accomplices (having 29, which he would not discover) would destroy the Plates they had, and quit the Money-making Business." His genuine speech, it added, might be had at Henry Deforrests.

Sullivan's captor, Eliphalet Beacher, also succeeded in apprehending other counterfeiters, who were bound over to appear at the Superior Court which was to meet in Fairfield, Connecticut, in

February. These individuals, however, chose to forfeit their bonds, and the General Assembly of Connecticut directed that the King's Attorney in Fairfield pay over to Beacher £10 from the forfeited bonds. This reward was voted him, since the fact that Sullivan was tried and convicted in New York prevented the grant of such bounty as would have been possible if the criminal had been convicted in Connecticut.²⁷

The knowledge that Sullivan had left his plates in the hands of his accomplices occasioned the passing on July 9, 1756, of a law entitled "An Act more effectually to Suppress and prevent the Counterfeiting of the Paper Currency of this Colony." The text of the act was as follows:

WHEREAS it appears by the Confession of Owen Sullivan lately Executed for Counterfeiting the Bills of Credit of this Colony that there are sundry Plates Engraved in imitation and Semblance of the Plates of this Colony and many other Implements and Materials concealed by his accomplices in order to carry on that pernicious Practice with which they have already Counterfeited many Bills of Credit of this Colony particularly the Emission of the Twenty fifth of March One thousand Seven hundred and fifty five which he Conceded AND WHEREAS the well-being and preservation of this Colony does in a great measure depend on the good Credit and Reputation of its Paper Emissions.

BE IT THEREFORE Enacted by his Excellency the Governor the Council and the General Assembly and it is hereby Enacted by the Authority of the same that if Any person or Persons Shall be detected in Concealing or aiding to Conceal Such Plates Bills Materials or Implements or any of them Shall be found in his her or their possession and Custody or any Person or Persons hereafter Shall Engrave or otherwise Contrive any such Plate or Plates Materials or Implements or in any wise aid or assist in Counterfeiting the paper Currency of this Colony Such Person or Persons Shall for any such Offence (being thereof Convicted) Suffer the pains OF Death without benefit of Clergy as in Cases of Felony any Law usage or Custom to the Contrary Notwithstanding.²⁸

²⁷ Conn. Archives, Crimes and Misdemeanors, Series 1, Vol. 5, p. 17 and *The Public Records of Connecticut* X, p. 539.

²⁸ *The Colonial Laws of New York* IV, pp. 92-93.

During 1756 there are two records of counterfeits being stopped: at a meeting of Quarter Sessions of the Peace of Dutchess County on May 20, 1756, when the court sat all night, Justice Noxon delivered several bills of Rhode Island which were supposed to be counterfeit and which had been taken from a person named Wells. Noxon also produced two false Spanish dollars, one of which he took from Thomas Sheldon and the other from Hugh Galarby. At the same time Justice Soule brought into court a false dollar sworn on a certain John Brackett.²⁹ In New York City Alderman Cuyler delivered into the Court of Quarter Sessions on November 3, 1756, ten counterfeit bills: four of £3, nos. 1650, 151, 1690 and 5675; one of £5, no. 2745; four of £2, nos. 5668, 1365, 3657 and 1365; one of 20 shillings, no. 87521.³⁰ Again, in 1757, especially two and one pound bills were being counterfeited, as is shown by the record of those produced in Quarter Sessions in New York: on February 2 the recorder brought in two counterfeits of £3, nos. 1532 and 1702, four of £2, nos. 5684, 5628, 1537 and 5671, and one bill of £1, no. 1148. At a meeting of the same court on May 4 Alderman Livingston produced two false £3 bills, nos. 1555 and 1563, and one of £2, no. 5615.³¹ It seems quite probable that most, if not all, of these counterfeits were printed from plates made by Sullivan and left in the hands of his confederates in Dutchess County or elsewhere.

So serious was the evil in that county that two of its justices of the peace, Jacobus Ter Bos and Matthew Du Bois, in behalf of themselves and other inhabitants of the county, on November 1, 1757, petitioned De Lancey, humbly showing:

That for many years bypast, a Gang of Certain wicked & Evil disposed persons, hath Infested this part of the Province, who have made it their chief business to counterfeit the Public Bills of this & other his Majesty's Provinces in America, and to make false and Counterfeit Dollars and other moneys, and to Impose said Counterfeit Bills and Moneys on many of the poor Ignorant People in this Province and others to the great hurt Injury & Damage of his Majesty's Liege Subjects in these parts.

²⁹ Ms. Mins. Dutchess Co. Sess., Liber B, May 20, 1756.

³⁰ Ms. Mins. NYCQS 1732-1762, Nov. 3, 1756.

³¹ *Ibid.*, Feb. 2, 1757 and May 4, 1757.

That your Petitioners with great Risque trouble and Charge have secured several of these Offenders in the Common Goal of this County, where some of them have been confined for a Considerable time at a great Expence to said County.

That the said County Goal is by no means strong and secure enough to keep these and other offenders now in Confinment there, without the greatest Care and risque, and your Petitioners are greatly affraid the said Prisoners will find means to break the said Prison & make their Escape and thereby not only evade punishment but be of the utmost pernicious Consequence to the good people of this Province for the Future & especially as there are diverse others of their Gang not yet taken who lurk secretly in said County.

That by reason of War and the Incursions of the Enemy a Considerable time hath elapsed since there hath been any Court of Assize or Goal Delivery in this County, and in all probability if the war continues may not be held for some time to come, by which means the said Prisoners may have further opportunity to make their Escape and pass unpunished.

Your Pet^{rs} therefore humbly pray your Honor to take the premises into Consideration and to appoint a Court of Goal delivery to be held in said County so soon as conveniently may be & that the said Prisoners may be transmitted to the Goal in New York & there secured, or else to Grant such other relief in the premises as your Honor in your goodness shall think proper...

The document was signed by the two justices named above and also by Lawrence Van Kleeck, Leonard van Cleeck, Henry Ter Bos and John Bayley.³²

It is not improbable that much of the counterfeit money circulating in the province in 1758 originated with the Dutchess County Gang. At a meeting of the Quarter Sessions of the county on May 16 Justice Hamblin produced a false Boston shilling which was sworn on one Caspar Rows. Another justice, Augustinus Turck, brought in a counterfeit pistareen and a shilling piece, both Spanish, which were sworn upon Hans Peter Snyder.³³ At the Court of Quarter Sessions in New

³² NY Col. Mss. 85, p. 38.

³³ Ms. Mins. Dutchess Co. Sess., Liber C, May 16, 1758.

York City Alderman Coventry on August 2 produced eight false bills, one of £3, no. 1502, five of £2, nos. 5634, 5670, 5674, 5679 and 5680, one of £1, no. 2121, and one of 10/, no. 1717.³⁴

Perhaps the activities of the justices of the peace in Dutchess County were very effective, for there is recorded in 1759 the destruction in Quarter Sessions in New York City of only one counterfeit bill, one of £3, no. 1667, produced on February 6 by Alderman Cuyler.³⁵ Concrete evidence of the work of the justices of Dutchess County is provided by the minutes of the governor's council for May 1, 1759, which read: "His Honour acquainted the Council that one Richard Maeslyes confined in Goal in dutches County, on Suspicion of his having counterfeited the Bills of Credit of this Province, but that he was informed there was not sufficient Evidence to Convict him, and that the Man was desirous to inlist in the Provincial Regiment." The Council then advised that the governor promise Maeslyes a pardon on condition that he enlist and serve the campaign in the New York regiment.³⁶

On July 3, 1759, a law was passed for the emission of bills of credit to the amount of £150,000, and the same penalty, death without benefit of clergy, was provided for convicted counterfeiters and passers in the same terms as in the law of December 16, 1737.³⁷ Another law, passed on March 22, 1760, for the emission of £60,000, also fixed the same punishment.³⁸

During the year 1760 there is no evidence of counterfeits being brought into court or of much counterfeiting in the province. A certain Sam Ellis, who said that he came from Fish Kills in New York, was detected uttering counterfeit dollars at Ashford, Connecticut. In his examination he confessed that he had passed seven or eight of them and had concealed thirty in some coal at a blacksmith's where he had stopped to have his horse shod. When he was committed to Windham

³⁴ Ms. Mins. NYCQS 1732-1762, Aug. 2, 1758.

³⁵ *Ibid.*, Feb. 6, 1759.

³⁶ Ms. Mins. Council 25, p. 283.

³⁷ *The Colonial Laws of New York* IV, pp. 353-354.

³⁸ *Ibid.* IV, p. 495.

jail, he hinted that he could bring out a great deal of business of the same sort for the King's Attorney in Connecticut.³⁹ It is possible that Ellis had made his dollars in New York and had come to Connecticut to pass them.

Later in this year, on October 17, one Patrick Moore, described as a laborer, was examined before John Cruger in New York City. His examination, to which Moore affixed his mark, has been preserved and reads as follows: "Patrick Moore... Saith, that on Saturday Last, in the Evening of the same day, he the Deponent found a Number of pieces of pewter in Imitation of Two Shilling pieces of Spanish Coin, in the publick Street wrapt up in an old handkerchief, one of which he some short time thereafter Exchanged to a woman in order to pay for a paper of Tobacco which he bought of her, and Rec. the Change from her in Coppers and the Remainder of the said pieces he threw into a piss Tub in the New Goal, that the piece now shown to him is much Like the one, he Exchanged to pay for the said paper of Tobacco, that there was also a Number of Ribbons in said Handkerchief, and further saith not."''⁴⁰

It is not known whether Moore was prosecuted. There was a Patrick Moore, said to be a tailor, who in August, 1752, had been committed to jail at New Bern, North Carolina, as a member of a gang which, about thirty miles from that town, in a great swamp, had been counterfeiting doubloons, pistoles, pieces of eight and half pistereens. Moore turned evidence against his confederates and so escaped punishment.⁴¹ If the Patrick Moore examined in New York in 1760 is the same individual, then his story of finding false two shilling pieces wrapped up in a handkerchief does not seem too credible.

Besides, it seems beyond reasonable doubt that the Patrick Moore of the false shilling pieces is the same person who, according to the *Boston Evening Post* of January 26, 1761, on Saturday evening,

³⁹ (Weyman's) *New-York Gazette*, May 26, 1760.

⁴⁰ H.R. Pleadings K 725.

⁴¹ *The Boston Weekly News-Letter*, Dec. 7, 1752, p. 2 and the *New-York Mercury*, Nov. 27, p. 2 and Dec. 18, 1752, p. 3.

January 24, 1761, was discovered in a dwelling at the south end of Boston. The man had entered the house and ascended the stairs so quietly as not to be heard, while an accomplice, James Doit, alias Hamilton, stood at the door and inquired for a person under a fictitious name. The intruder on the second floor was detected, brought before a justice of the peace and examined. He said that his name was Patrick Moore, alias Plunket, and that he was from New York. He had arrived in that city in August, 1760, in the ship "Sampson," commanded by Captain Greatrakes, and stated that, along with the crew, he had been tried and cleared of the charge of firing on his Majesty's ship "Winchester," wherein three men were killed.

The cases of counterfeiting which came to the attention of the law in the early part of 1761 were in Orange and Dutchess Counties. On February 18 Justice Denton committed to the Goshen jail two men from Paulin's Kill in New Jersey who were accused of making and uttering false Spanish milled dollars. The counterfeits appeared larger than the true coins and were made of soft metal. Likewise a ridge of the parting of the mould appeared on the edge of the coins.⁴²

In Dutchess County Charles Hamilton, a silversmith of Poughkeepsie,⁴³ was involved in counterfeiting Spanish coin. He was apprehended on either April 20 or 21, 1761, and one Lewis Bennet of Stratford, a shoemaker, made a deposition on April 21 before Justice Lawrence Van Kleek that on the night of Saturday, April 18, he saw Charles Hamilton have a parcel of Spanish cobbs which Hamilton said were of his make. Bennet further deposed that the cobbs of base metal shown him on the table in the presence of the justice he took to be the same sort of money or pieces which Hamilton showed him on Saturday night at the home of John Ryan in Beekmans precinct in Dutchess County.⁴⁴

⁴² *The Boston News-Letter*, March 12, 1761, p. 1.

⁴³ Hamilton is the earliest known silversmith in Poughkeepsie. See George Barton Cutten and Amy Pearce Ver Nooy, "The Silversmiths of Poughkeepsie," *Year Book of the Dutchess County Historical Society* XXX (1945), p. 23.

⁴⁴ J. T. Kempe Letters, J-G.: Dutchess Co.: copy of deposition of Lewis Bennet.

Hamilton was taken up on a warrant issued by Justice Bartholomew Noxon and was examined in the house of Baltus Van Kleek in Poughkeepsie before Noxon and two other justices of the peace, Lawrence Van Kleek and Anthony Yelverton. According to a copy of Hamilton's examination made on April 21 "Justice Noxon Delivered on the Table Nine Pieces of Base Mettal in Imitation of Spanish Coin Which was found upon one Gersham Hubble which Hubble said he had them from the Examinant this Examinant being Shewn the nine pieces and said that he hath these pieces from one Samuel Cogsdale Being Drunk and when he got sober found they were Base and threw them on the Ground and the said Hubble Took them up Whereupon this Examinant saith to Hubble I will Refine them, Justice Noxon found a Bottle of Quick Silver with Hamilton and Hamilton said that he saw Cogsdale Have about a Hundred such false pieces of Base Metal in Imitation of Spanish Cobbs and says farther That he knew Cogsdale to have made such bad pieces above two years ago."⁴⁵

On the next day, April 22, the same justices, with a colleague, Leonard Van Kleek, proceeded to examine Gersham Hubble, Junior, yeoman, of Fairfield, Connecticut. Hubble declared that he gave Hamilton a good dollar for nine counterfeits. When he told Hamilton that he suspected they were bad, Hamilton admitted that he had made them and said he could make better ones. According to Hubble, Hamilton told him that one Cogsdell was a good fellow and intimated that he was one of the fraternity. Hamilton also said that he could make gold and that if the pieces then delivered to him, Hubble, passed well, he could supply him with as many more as Hubble wished to take. In addition Hamilton claimed he could make "round Dollars." The examinant stated that he received the nine counterfeit coins from Hamilton on Sunday, April 19, in the forenoon outside the door of John Ryon in Beekman Precinct. He closed his testimony by reporting that Hamilton said he had a mine at Cornwell where he could work and make base dollars.⁴⁶

⁴⁵ *Ibid.*: examination of Charles Hamilton, Silver Smith & Miner.

⁴⁶ *Ibid.*: examination of Gersham Hubble.

Hubble's friends in Connecticut composed a recommendation of him and this was directed to James Livingston. On April 26 Justice Noxon wrote to Mr. Livingston to the effect that the document should have been directed to the judges of the Supreme Court in New York City, as the sole desire of Hubble's friends was to obtain permission for him to give bail. The next day Livingston sent Noxon's letter to Justice Chambers, whom he informed that James Hubble, brother of the prisoner, had taken with him the letter of recommendation from Fairfield, saying it might facilitate his securing bail for his brother.⁴⁷

Justice Chambers promptly referred the question of bail to Attorney General Kempe, who, after studying the evidence, wrote Chambers on May 1 recommending bail be permitted but in such amount as to compel Gresham Hubble's appearance as a witness against Hamilton. Hubble, he felt, had neither made nor passed any counterfeits and before this affair had been a person of good credit and hence should make an excellent witness.⁴⁸ On the other hand, Kempe was taking no chances with Hamilton, whom he designated in his letter to Justice Chambers as "a notorious offender." On May 1 Kempe sent the following letter to Charles Everit, Sheriff of Dutchess County: "I understand you have in your Custody one Charles Hamilton for counterfeiting Dollars, and that one Cogsdale is likely to be apprehended for the same offence and others hereafter may. -- I know not in what Condition your Goal is in, but trust that you will keep them secure that they make not their Escape from Justice, The Reason of my mentioning this to you, is because several Criminals have broke Goal & made their Escape lately from some of the Counties, particularly last year one did from Westchester -- and I should be very sorry should you be liable to be punished so severely as the Law directs for the Escape of a Felon, you will excuse my mentioning this to you, as I have no other Inducement but to take care Justice be done and as far as in one lies to prevent a publick Officer like you from being put to Trouble."⁴⁹

⁴⁷ *Ibid.*: letter of Noxon of April 26 and of Livingston of April 27.

⁴⁸ *Ibid.*: letter of Kempe of May 1 to John Chambers.

⁴⁹ *Ibid.*: letter of Kempe to Charles Everit.

After this admonitory letter the Sheriff of Dutchess County must have been relieved when Hamilton, a few days after he was confined in the jail in Poughkeepsie, made fast his handkerchief to a spike that was driven into the wall of the jail and then hanged himself.⁵⁰

⁵⁰ The *New-York Mercury*, July 13, 1761, p. 3 and *The New-York Gazette: or, the Weekly Post-Boy*, July 16, 1761, p. 3.

IX

THE COUNTERFEIT BRITISH HALFPENCE (1753-1754)

An act was passed on December 16, 1737, to prevent the further importation into New York of copper money. If any was brought in for more than the amount of ten shillings, it was subject to seizure, and one third of any thus confiscated was to go to the informer, whether the money was found on ship or on shore. The master of every vessel was required to report any copper money on board.¹ There appears, however, to have been no special interest in the matter until an article appeared in the *Independent Reflector* of May 24, 1753, in which the writer dealt with the overvaluing of copper pence in the Province of New York and pointed out that it paid to import them.

If it was worth the while to import genuine halfpence, it would naturally be much more profitable to introduce counterfeits into the colony, and this is exactly what happened. A dispatch dated New York, August 6, appeared in the *Boston Weekly News-Letter* of August 16 and read as follows: "The Publick are desired to take Notice, that *Some*, who undoubtedly have the *Welfare of their Country much at Heart*, have lately introduced among us, a large Quantity of bad *Half pence*; last Week a Gentleman in this City, found no less than 36 s. in a Bag of 6 l. the Means of their Discovery were, their weighing 2 *lb.* less than they should do. They are cast in Sand, look very rough, fil'd round the Edge, Letters bad, very thin and light, and may as well be discovered by the Sound, as any other Method of Tryal; and 'tis suppos'd are some of those that were so current in *London* some Time ago, and offer'd to Sale there for 7 d. per *lb.* They are of different Sorts and Dates."

¹ *The Colonial Laws of New York* II, pp. 962-963.

On September 27, 1753, Mr. Draper, publisher of the same Boston newspaper, printed the following communication which had been addressed to him:

Mr. Draper, For the Warning of all Persons from being cheated by counterfeit Copper Money, I desire you to insert in your Paper a publick Letter I have just now received from Mr. Agent Bollan. J. Willard. Pall-Mall, July 9, 1753.

"Some Months past great Quantities of counterfeit Half-pence were made at *Birmingham*, each of them being considerably less in Value than a Farthing, and many of them passed in Payments before the Fraud was known; but after its Discovery, the Government by seizing diverse large Parcels of them, and taking other proper Measures, sometime past entirely prevented their further Currency here: Whereupon, as I have lately understood, large Parcels of them were collected together in order to be sent to *Boston*, to be passed off in Payments there, part whereof according to my Intelligence was shipt in some of the last Ships and the rest are intended to be sent in some of the next. I have endeavour'd to find out what now remain here with a Design to have them immediately seized, having made the proper Application for that Purpose, but have not yet been able to meet with them: Whether my Motions, or any thing else will prevent their being shipt off according to the Intent of the Parties who collected them, I cannot say; but think it my Duty to send you this Intelligence, so that this villanous Design may not take Effect in the Province."

The false coins, as foreseen, made their way to Boston, where, during the last week in October, 1753, a great number of them were uttered. A search was instituted and several bags of the halfpence were found in the custody of a passenger come from London on the last ship in under the command of Captain Cary. This passenger was arrested and committed to jail, but later admitted to bail.² The metal in the halfpence was base, and, in addition, the pieces were so light that six of them would weigh but four of the true ones.³ In New York, however, really great damage was done. *The New-York Gazette: or, the*

² *The Boston Weekly News-Letter*, Nov. 2, 1753, p. 2.

³ *The New-York Mercury*, Nov. 5, 1753, p. 2 and the *New-York Gazette: or, the Weekly Post-Boy*, Nov. 5, 1753, p. 4.

Weekly Post-Boy of December 3, 1753, reported: "The Confusion in this City, occasioned by counterfeit Copper *English Halfpence* amongst us, is almost inconceivable; --- for notwithstanding the large Quantities of good Pence we have now long had, there is now hardly any Sum offered, but there are counterfeit Ones intermixed; and to such a Degree of Suspicion, is the common People raised, that many good Pence, which have passed current perhaps for about 20 Years past are now refused. --- What Punishment must be owing to those Pests of Society, who have thus artfully and villanously introduced those base Half-pence amongst us, by which the Fair-Traders as well as the Poor, are thus injured!"⁴

Toward the close of November legislation was considered as a partial remedy for the situation,⁵ and the result was an act, passed on December 12, 1753, to prevent the importation or passing of counterfeits of British halfpence or farthings.⁶ By this each person importing the coins or causing them to be imported was subject to a fine of £100; the passers of such money were to pay a forfeit of ten times the value, on the oath of an informer, while the justice of the peace had full power if the amount involved no more than £6. Any person to whom these counterfeits were offered was to seize them and take them to a magistrate. Passers were liable to make good the sum if the recipient delivered the money to a magistrate within a week. In disputes over these false pieces, if the sum was under 40/, their goodness could be determined by a justice. In the case of larger amounts, the justice on request was required to take two freeholders to assist him in reaching a decision. Each year the court of sessions was to have the false halfpence and farthings melted down, sell the metal, and give the proceeds to the overseers of the poor for the use of the needy. Anyone knowingly retaining these counterfeits in his custody for ten days was to be treated as if he were an importer of them.

⁴ The same item was printed in the *Boston Weekly News-Letter*, Dec. 27, 1753.

⁵ *Journal of the Legislative Council of the Colony of New York*, pp. 1132, 1136, 1139-1140.

⁶ *The Colonial Laws of New York* III, pp. 948-951; cf. Goebel and Naughton, *op cit.*, p. 133.

Finally, a search warrant was to be issued if information on oath was given to a magistrate.

To cope with the chaotic condition brought about by the circulation of the false copper coins, some seventy-two merchants and shopkeepers of New York City drew up and signed on December 18, 1753, a manifesto. They pointed out that the halfpence were short in weight and alloyed. Money, they remarked, for which a sinking fund was not provided, had to be considered in the light of its intrinsic value. They continued:

In regard to Pennies, how shall we sink, or where ship them? Certainly no where, while they pass at such an unreasonable Rate, higher than in any His Majesty's Dominions; and this unhappy Colony must, in the End, be the general Sink of all that worthless Money, and when the Remedy is found absolutely necessary (and that such a Time must come, needs no Argument to prove it) how wretched and confused shall we be to reflect, that tho' we saw the Evil growing every Day more and more burthensome, we wanted Steadiness to administer a Remedy, 'till the Disease became incurable, without shocking the whole Frame. At Home, while they have Copper in the Kingdom, they cannot follow a better Business than supply us in the Manner above stated; nor can all the Monies this Colony has, put together, strike at its Quiet and Interest more effectually.

The above Reasoning, clearly shews the Necessity there is, for every true Lover of his Country, to endeavour as much as in him lays, the reducing Pennies to *Fourteen* for a Shilling.

We the Subscribers, being sensible that the Importation of *British* Copper Half-Pence, is prejudicial to the Interest of this Colony, and a great Means of depreciating our Currency, legally established, Do, for the Prevention thereof, on our Words of Honour, declare, That we will not, after this Day, receive Copper Half-Pence, otherwise than Fourteen for a Shilling, and that we will pay them away at the same Rate; provided Fifty of the principal Merchants of this City, sign this Paper, In that Case we hereby give Leave to the Printers in this City, in their next Week's News-Papers, to make this our Resolution publick.⁷

⁷ *The New-York Gazette: or, the Weekly Post-Boy*, Dec. 24, 1753, p. 2.

Within a short time, it was reported, other dealers in addition to the seventy-two signers, decided to follow the same procedure, especially the majority of the Coenties Club.⁸

The *Pennsylvania Gazette* of January 22, 1754, printed the following dispatch of January 14 from New York: "We are credibly informed, That their Worships the Mayor and Aldermen of this City, in granting Licences for the Excise, last Week, would not take Pence in any other Manner than Fourteen to the Shilling, and recommended it to therspective Retailers, to receive and pay them out in no other ways; which, no doubt, will give the greatest Sanction to so reasonable a Scheme, calculated for the real Benefit of every Individual in this Province. In short, the Generality of the Inhabitants of this City, are now so truly sensible, that the lowering of the Pence to fourteen to the Shilling, will be attended with salutary Effect, that very few, if any, will now take them any other Way."

The situation, however, led to a riot in New York City and three persons were arrested, one man for beating a drum, and Wendal Ham and Mathias Sleght, who, it was alleged, encouraged the mob to riot by throwing halfpence among them.⁹ Further details about the confusion in the city were given in an extract from a letter sent to Philadelphia from New York City dated December 25, 1753, and printed in the *Boston Weekly News-Letter* of January 24, 1754. It read:

The Papers shew you what have been done about the Penn(ies) but it is yet uncertain whether they will go at Twelve or Fourteen to a Shilling. They not only refuse the Taking of the Pennies lately counterfeited, but all that have not a plain Head and Tail of King William, which you know are very many; all those of the same King, which look any Thing whitish. I give you this Caution in Time, that the Rubbish be not palm'd upon the Pennsylvanians.

Pennies of bad Copper are easily detected, by making them red hot, and striking them with a Hammer, which will make them fly to Pieces; while good Copper will bear forging in a red hot State, and in a lower Degree of Heat, like Iron.

⁸ *Ibid.*, Dec. 31, 1753, p. 2.

⁹ Ms. Mins. Council 23, pp. 133-134.

Last Night was seized on board the Prince of Wales, just arrived from London, a great Quantity of Copper Counterfeits; and, 'tis said, that about Three Hundred Pounds Worth of them (had they been worth any Thing) were thrown overboard, to prevent Seizure.

In Philadelphia, however, according to a letter of January 16, 1754, there was not the least talk of taking the pence at twelve to a shilling. The people would rather lower them to eighteen for a shilling, and, in case of a shortage of change, print a number of penny tickets.¹⁰

The Court of Quarter Sessions in New York prepared to handle counterfeit copper coins which should be stopped. Mr. William Taylor, a brass founder, on February 6, 1754, was sworn in open court to deliver back the full produce of whatever copper halfpence should be handed over to him by the magistrates to be melted down.¹¹ On August 7 the mayor delivered into this court 128 pounds weight of them and Alderman Filkin produced 613 pounds weight of the counterfeits, all of which were turned over to William Taylor to be melted down.¹² Informers contributed to such successful seizures, as is shown by the fact that the Common Council of New York City arranged to have £10/9 paid to the Surveyor of Customs, George Harrison, "for the Like sum by him advanced and paid to severall persons as Informers against severall parcells of Counterfeit half pence."¹³

The activities of Mr. Harrison were recorded in the *New-York Gazette: or, the Weekly Post-Boy* of March 25, 1754, which stated that on the preceding Tuesday morning a large quantity of counterfeit British half pence was seized by the surveyor and searcher of his Majesty's Customs and lodged with the mayor. The same number of this newspaper also printed the following item signed by Mr. Harrison: "Whereas on the 18th of March, Inst. Information was given to G. Harrison, Surveror and Searcher of his Majesty's Customs, of a large Quantity of counterfeit Half Pence being lodged in a certain

¹⁰ *Boston Weekly News-Letter*, Jan. 31, 1754, p. 1.

¹¹ Ms. Mins. NYCQS 1732-1762, Feb. 6, 1754.

¹² *Ibid.*, Aug. 7, 1754.

¹³ *Minutes of the Common Council of the City of New York* VI, p. 166, March 20, 1759.

House in this City, which were accordingly seized, and the Informer fully satisfied. Now these are to give publick Notice, that whoever will be pleased to inform and aid the said G. Harrison, where any such Counterfeits may be found, that upon Conviction they shall be intitled to the whole Penalty given by the Act, to wit, One Hundred Pounds, upon the Importer, or such as retain them, or in whose Custody they are found ten Days after the Publication of the Act, with Costs, without being put to the Trouble of prosecuting, or having their Names discovered."

Two weeks later the same newspaper of April 8, 1754, thus reported a further haul: "A large Quantity of Counterfeit British Half Pence, supposed to be near One Hundred and Fifty Pounds, was by Mr. G. Harrison, Surveyor and Searcher of his Majesty's Customs for the Port of New-York on Tuesday morning last seized in a Store in this City, and the Whole lodg'd in the Hands of Alderman Filkin's. *Such Assiduity as this, in making two considerable Seizures within a Fort-night's Time, will, we trust, be an effectual Step towards preventing the Importation of counterfeit Copper Halfpence, into this Province, so prejudicial to the Country in general, and the fair Trader in particular; and will, undoubtedly, reflect no less Honour on one so zealous for the good of the Common Weal, than Dishonour on the Person or Persons who may at Times import them, contrary to the express Words of the Act of Assembly of this Province, lately made and provided in that Behalf.*"

The confidence of the public in the halfpence was, quite naturally, undermined, so that the same paper on April 24, 1754, printed this comment:

The Confusion among the Inhabitants of this Place, occasioned by the Counterfeit Half-pence, seems to increase daily; and the Infatuation of Mistrust, if it may be so termed, is so unaccountable, that the King William Half-pence, are now almost universally refused as counterfeits, altho' it is certain, that there are fewer of that sort bad, than of others; and that they have been passing amongst us without Suspicion these many Years: — — — At the lowering of Half-pence it was a popular Cry, that the Merchants did it, with a Design to ship them away, and now we are taking

the only possible Measure to oblige them to do it, by refusing almost all of the King William Half-pence, even against the Convictions of our own Sense and Reason, on Pretence of their being counterfeits; whilst we know, they are only worn with Use, or scratch'd a little by the Boys playing chuck-farthing with them in the Sand. Where or how this unreasonable Practice will end, God knows; but methinks, every Individual of us, should reflect seriously on the ills we are bringing on ourselves, and which more or less every one must daily feel (unless they are those Incendiaries that imported the bad Ones) and for our own sakes, cause the Matter to be speedily determined; for as we have a greater Number of those Half-pence than others amongst us; we should either continue the Currency of all that are not counterfeits, or else absolutely refuse them all at once; which last will be found to be a heavier Tax than the lowering them; besides the depriving the Place of so much of its running Cash; and yet to continue under the present Infatuation is an Evil greater than either.

Apparently the author of the above need not have been so alarmed, for the panic seems to have subsided soon after this. *The New-York Mercury* of May 16, 1754, informed its readers that the previous week George Harrison had made another seizure of between £30 and £40 of counterfeit British halfpence. With that notice the matter disappeared from the public press, and it may be presumed that the legislation that had been enacted, the energetic searches and seizures made by Mr. Harrison, and the new rating of the coins largely cured the evil.

X

THE PERIOD FROM JUNE, 1761, TO 1765

In June, 1761, New York City was plagued with a flood of altered New Jersey and New York bills. The first warning of their appearance was sounded by the following item in [Weyman's] *New-York Gazette* of June 8: "The Public is desired to be cautious how they receive New-Jersey SIX POUND Bills, as there are Counterfeits of that Denomination now in this City. -- They are dated April 10, 1759, and are made out of *Six Shilling* Bills of the same Date. -- The Words *Six Pounds*, are ill done with common printing Types, on the Erasure of the Words *Six Shillings*; and the Word *Ounces* is in larger Letters than those the Bills are printed with. But they are easily discovered, as the true Ones are printed on Copper Plate, and the others on common printing Types."¹

The *New-York Gazette*: or, the *Weekly Post-Boy* of June 11 reprinted the above account verbatim and then added: "*Cautions of this kind, whenever necessary, are certainly right and as it ought to be every Ones Care to bring the Offenders to Punishment, one would imagine a Man could hardly take such a large Bill without knowing from whom he had it, or at least, if acquainted with those Bills, might easily, as the Writer says, have discovered it; -- -- Indeed, the true Six Pound Bill, being so much unlike any other Bill of Credit, that it must be an Affront upon Common Sense for any Person to offer to pass a Bill counterfeited in the above Manner.*"

On June 22 [Weyman's] *New-York Gazette* published another caution: "The Public are desired to be cautious how they receive *New-York Ten Pound Bills*, as there are Counterfeits of that Denomination now in this City. -- They are dated the second of April 1759, and made out of *Two Pound* Bills of the same Date. -- They may be

¹ *New-York Mercury*, June 15, 1761, p. 1, reprinted this notice from [Weyman's] *New-York Gazette*.

noticed by the Erasure of the Word *Two*, both in the front and left Escutcheons, and the Word *Ten* nicely stamped in with printing Types, vastly plainer than in those of the true Bills. -- The Emblem of the *Two Pound* Weight in the Middle of the *Forty Shillings* Bills, are likewise almost erased, and two Letters, thus (V V) struck in their Stead, in Imitation of those of the true Bills." The *New-York Mercury* which appeared the same day also warned of the counterfeit ten pound bills, which, it stated, were dated April 21, 1760. It noted that the E and N on every part of the bill were pasted on and appeared smaller than the T. "The V on each of the Weights," it concluded, "are pasted on also, as is the X at the Left Corner, and all the Figures throughout the Bill." Finally the *New-York Gazette: or, the Weekly Post-Boy* of June 25 repeated the description given in the *New-York Mercury* but gave the date of the bill as April 2, 1759, and suggested that the bill be held to the light in order to discover the letters or figures pasted on.

This same number of the newspaper, which appeared on Thursday, stated that on the afternoon of Tuesday three men, one of whom had long been an inhabitant of New York City, were apprehended and committed to jail on suspicion of altering New York two pound bills to ten pound bills. The account continued: "Soon after their Commitment, one of them made a pretty ample Confession of the Fact, and is the same Person in whose Custody the counterfeit Six Pound Jersey Bills mentioned in this Paper two Weeks ago, were found. . . . It is said, there are some others concern'd, who are absent in order to distribute some of these Bills, but that proper Measures are taken for securing them, and there is no honest Man but what must sincerely wish they may all meet with a Reward suitable to their Demerits."

On the same day that the suspected counterfeiters were arrested, June 23, the magistrates proceeded to examine the prisoners. One examination read thus:

City of New York Archilaus Lewis of the said City Inholder being duly Examined and on his Examination saith that about Six Weeks ago, one John Higgins came to his the Examinants House, and after being there a few days, Higgins asked him If he could Change Some Bills for him, that

he the Examinant replied no upon which the said Higgins [said] thats not the Case I can make money, that the Examinant said he would have no thing to do with any thing of that kind but at Length the said Higgins overpersuaded him to Receive some Counterfeit Bills of this province of Ten pounds, in order to Change for Good ones the one half of all which he Cou'd exchange he should have as a Reward for his trouble, that the Ten pound Bill he paid to the Mayor, was one of the Bills he Rec'd of the said John Higgins that at the time of paying away the said Bill he knew it to be a false & Counterfeit one, that he also paid one other Ten pound Bill to one Dillison, that the Ten pound Bill now shown to him the Examinant and which was found in his Custody he Rec'd of the said Higgins in order to pass upon the Terms aforesaid, that the forty Shilling Bill . . . shown to him the Examinant and Likewise . . . Twelve shilling Bill he also Rec'd of the said Higgins; and the Examinant further saith that during Higgins's stay at his House, one New Berry Dawson he the Examinant verily believes was Concerned with the said Higgins in altering and Issueing the said Bills of Credit, came into his the Examinants House, and Stopt in a private Room, & upon his Comeing in he even heard the said Higgins ask the said Dawson, what Luck he had, to which the said Dawson Replied Very good Luck, and at the same Clapt his hand to his pocket and Gingled some silver that all the said Counterfeit Bills which Could be passed both by himself and the said Higgins, he was to have the one half thereof but that the Ten pound Bill which the said Higgins passed to one M^r Rusco he never accounted to him the Examinant for any part thereof, as he ought to have done by the first agreement, that he also Received two false Jersey Bills of Six pounds from the said Higgins which he pass'd to M^r Henry Cruger, that before which, the said Higgins told him the Examinant he had made them of Six Shilling Bills, that he Gave the said Higgins Two forty Shillings Bills of this Currency to alter into Ten pound Bills and five or Six Jersey Bills of Six Shillings each to alter for him in Six pound Bills, that two of the said Six Shillings Bills so by him Given as af^d to the said Higgins and which was turn'd into Six pound Bills, he p^d to the said M^r Henry Cruger, that he the Examinant also passed in his House three false Jersey Bills, of twelve Shillings each, which were altered & made from three shilling Jersey Bills, by the said Higgins and further saith not."²

² H.R. Pleadings K 726.

The above examination was taken before John Cruger, J. Livingston, Phil. Livingston, John Bogert, Jr., and Peter Mesier.

Another of the men apprehended on June 23, Ichabod Higgins, at once gave an affidavit³ against Archilaus Lewis, Greenbury Dawson, John Higgins, and Richard Cooly. It read:

City of New York I Ichobad Higgins of the said City Mariner being Duely sworn, did Declare, that about five weeks ago whilst he Lay sick at Archilaus Lewis's, a Tavernkeeper in this City, one John Higgins who had been there some time before he the Deponent came there, told him the Deponent, that he had altered Severall Jersey Shilling Bills into twelve Shilling Bills, Eighteen Penny Bills into Three pound Bills, three Shilling Bills also into three pound Bills, six shilling Bills into Six pound Bills, and many forty shilling Bills of New York Currency into Ten pound Bills, that the said John Higgins also informed him the Deponent that he had Delivered to the said Archilaus Lewis Seventy five or Eighty five pounds of these false Bills in order to Change for good ones one half of which the said Lewis was to have for his Trouble deducting the originall Sum of the Good Bills which the said Lewis delivered to the said Higgins and the other half was to be Returned to him, that the said John Higgins also told him the Deponent, that he had passed Severall false Bills of his own make as well in Albany as in this City, that he the Deponent has Severall times seen the said John Higgins alter Severall good Bills so as to make them of greater Value than they were before, that one Greenberry Dawson told him the Deponent, that he came from Maryland to this City, with the said John Higgins -- that he the Deponent has seen the said Dawson alter Severall forty shilling Bills of New York Currency into Ten pound Bills, and pay away Severall of them for Good ones, that the said Deponent saw the said Greenberry Dawson Deliver to one Richard Cooly two false Ten pound Bills in order to Change for him, part of which the said Cooly was to have for his Trouble; that the said Dawson told the said Cooly, that the said Ten pound Bills were altered and made by him from forty shilling Bills, and that he the Deponent, saw the said Cooly pass one of these false Bills in a House near the white Hall Kip that he the Deponent Saw the said Dawson pay to one Isaac Tellar who lives in New

³ H.R. Pleadings K 677. The document was sworn to before John Cruger, S. Johnson John Bogert, Jr., and Peter Mesier.

highlands in Dutches County one of these false Ten pound Bills in part of a mare he had bought of him and further saith not.

Further developments in the case were given in the following item in [Weyman's] *New-York Gazette* of June 29, 1761:

Since the Caution given in this Gazette of the 8th Instant, about the New-Jersey SIX POUND Bills, dated April 10, 1759; and That in our last Monday's, about *Ten Pound* Bills passing amongst us. there have been discovered false Jersey Bills of other Denominations, bearing different Dates, viz. *Twelve Shilling* Bills made out of One Shilling ditto, dated April 12, 1760, *Three Pound* Bills, made out of Three Shilling ditto, dated June 14, 1757; and it is thought there are Numbers of the like dispersed abroad. The *New-York* false *Ten Pound* Bills, also appear to be of various Dates; and are all altered after the same Manner as described in our last, by having the proper Words, Figures and Devices rased out, and others *pasted* on in Lieu thereof: The same has been done on both Sides, with regard to the Jersey Bills.

Some of the *New-York* Bills, that are rendered false, are printed on thin, others on thick Paper: -- To discover those of the First, hold it against the Light, when the Falsehood will appear very perceptible: To discover those of the latter, bend the Bill back direct across the word TEN, and the Letters will instantly scale off more or less at Top and Bottom; as will also all the other Alterations. -- The like is to be observed with the *Jersey* Bills. --

It appears that there has been five or six Men concerned in this very base and villainous Affair; -- Three of whom were committed on Tuesday last to Goal, on Suspicion of altering and uttering the Bills, viz. *Achelles Lewis* (Tavern-keeper, near the White-hall,) who made a very large Confession of the Fact soon after he was detected in uttering them, *Ichabud Higgins*, and *Richard Cooly*. -- On the Confession of *Lewis*, one *John Higgins*, brother to *Ichabud*, appeared to be concerned, and that he was gone towards Philadelphia: -- Warrants being immediately issued, he was apprehended on Wednesday last, on his return to New-York, between Bordentown and Amboy Ferry; carried to Amboy Goal, fetter'd there for a Night, and was brought handcuff'd last Friday to this City, is now lodged separate from his Accomplices in the New Goal, and there is no doubt made but that they will meet with the Reward due to their Demerits.

It is said that *John Higgins*, when taken, had a large Sum of Half Johannes's about him, which he had gathered by changing the false Money throught the Jerseys and Pennsylvania.⁴

The *New-York Gazette: or, the Weekly Post-Boy* of July 2, 1761, informed its readers that John Higgins had been apprehended at Cranbury. It also noted that New Jersey bills had been altered from three shillings to three pounds and from one shilling into twelve shillings. It continued: "It is probable that all those corrupt Streams have flowed from one and the same poisonous Fountain. — — — Now, if the Publick will but take Notice of what Bills they receive of the Jersey Money, they may observe that every Bill mentions the Ounces, Penny-weights and Grains of Silver they were made current for, exclusive of the Nomination of the Bill, so that unless the whole Bill be so defaced that it cannot be read, it may be easily discovered; when any Bill is so sullied, either designedly or accidentally, that it cannot be read, it is high Time it was return'd into the Treasury, where there is always other Money ready to exchange it."

As a salutary warning to any who might consider altering the bills [Weyman's] *New-York Gazette* of July 6, 1761, printed on pages two and three the text of the act of December 16, 1737, which fixed the penalty of death without benefit of clergy for those convicted of altering or counterfeiting any of the bills of credit of New York.

Before the prisoners came to trial, one of them broke jail. The *New-York Mercury* of August 3 reported: "Tuesday Night last Ichabud Higgins, committed on Suspicion of counterfeiting the Bills of Credit of this Colony, in Company with a Sailor and a Soldier, crept up the Chimney of the Room in which they were confined, let themselves down by the Help of their Bed Cloaths into the Goal Yard, and got clear off."

On July 31, 1761, the grand jury preferred the following indictments in the Supreme Court of Judicature in New York City: against John Higgins for altering and passing bills of credit of New York; against

⁴ Harrold E. Gillingham, *op. cit.*, pp. 30–31, states that John Higgins had been making frequent trips to Philadelphia.

Newberry Dawson for the same; against Archilaus Lewis for passing an altered bill of New York; against Richard Cooley, of New York, Peruke Maker, for having on June 23, 1761, in the Dock Ward passed a £2 New York bill altered to £10, and the witnesses against him were given as Ichabod Higgins, Elizabeth Bellknap and Daniel Sullivan.⁵ During the January, 1762, term of the Supreme Court John Higgins was tried, convicted, and sentenced to be executed on Friday, February, 12, but because of the shortness of the term the cases of Lewis and Cooley were turned over until the April assize.⁶ On the appointed day Higgins, alias Blair, was hanged at Fresh-Water. He was born at Alexandria, Virginia, of reputable parents, and was about thirty years of age at the time of his execution. He died very penitently, making no other speech at the gallows than the declaration that he was innocent of what was sworn against him but owning that he had deserved death for passing counterfeit bills of New York and for formerly having counterfeited those of Philadelphia.⁷

It would seem that Dawson was not taken, as his case was not to come up at the April term. The fate of Lewis and Cooley is not known, as neither the newspapers nor court records yield any further evidence. There does exist, however, a document in which the attorney general marshalled the evidence to be presented by each witness against Richard Cooley "on Tryal 27th April 1762." The evidences for the King were Daniel Sullivan, Elizabeth Bellknap, Robert Bren, Joseph Whitehead, William Depyster, Jacobus Rosevelt, Jn^e Markel, Michael Butler, Lewis Hamilton and Mary Van Kueren. The notes, because of their brevity and disjointed nature, are not absolutely clear, but the story they tell is essentially as follows. Cooley and a certain Chase came to the house of Daniel Sullivan, who changed a bill for them, giving them twenty-five dollars for it. Later Sullivan told one Lewis

⁵ Ms. Mins. SCJ 1756-1761 (Rough), p. 246 and H.R. Pleadings K 613.

⁶ [Weyman's] *New-York Gazette*, Jan. 25, 1762, p. 2, *The New-York Gazette: or, the Weekly Post-Boy*, Jan. 28, 1762, p. 3 and *The New-York Mercury*, Feb. 1, 1762, p. 3.

⁷ *The New-York Mercury*, Feb. 22, 1762, p. 3; [Weyman's] *New-York Gazette*, Feb. 22, 1762, p. 3; *The New-York Gazette: or, the Weekly Post-Boy*, Feb. 25, 1762, p. 3.

Hamilton of a ten pound bill he had received of a Captain Skinner but Hamilton believed it had really been passed by Chase. Hamilton evidently was suspicious of Cooley and told Sullivan he was sorry for Cooley, since a man had paid Cooley for a wig with a bad bill. Sullivan then went to the City Hall, taxed Cooley with passing the bill, and Cooley begged him to burn the bill, promising to repay him a dollar at a time by making wigs for Sullivan's lodgers. He refused, however, to tell who had given him, Cooley, the bill.

Cooley went to the shop of Elizabeth Bellknap and bought some china, for which he offered a ten pound bill. Mrs. Bellknap, as she could not change it, sent it to a neighbor, Mr. Markel, for that purpose. Mr. Markel said that his negro wench brought him the bill but, as he deemed it false, he sent it to the mayor.

Again, Cooley gave a servant a ten pound bill and asked him to take it to Mrs. Mary Van Kueren, from whom he was to purchase some linens. Mrs. Van Kueren sent her wench with the bill to be changed to Jacobus Roosevelt and William Depyster, both of whom refused it as false. She also sent it to a Mr. Boswell, who returned it with the message that it was counterfeit. She then went in person to Robert Bren and desired him to come to her house, as a man was buying linens there and had a false bill of ten pounds denomination. Cooley was next summoned, and, when he came, admitted that he had given the bill to Mr. Whitehead's servant. Cooley was then taken to Alderman Benson and, it seems, placed under arrest.

The evidence which Michael Butler, apparently an innkeeper, gave was to the effect that in March, 1761, he saw Cooley, Higgins and Dawson upstairs in a room with two soldiers. He heard one of the soldiers say he would not do it, while the other insisted he should. Later he noticed that Higgins, Cooley and Dawson went privately up to his garret, and, suspecting that they were about making false bills, he followed them upstairs but met them already coming down.⁸ If Lewis and Cooley were brought to trial, it would seem that there was evidence enough to convict them. It is, however, strange that no ac-

⁸ H.R. Pleadings K 693.

count of their trial or punishment was given in the minutes of the Supreme Court or in the press.

The hanging of Higgins did not put an end, even for a short space of time, to counterfeiting and passing. On February 3, 1762, the mayor produced in Quarter Sessions in New York City a five shillings bill altered to five pounds and another of five shillings altered to ten shillings, with the numbers defaced on both bills. He also brought in a counterfeit bill of £3, no. 527, and a false one of £2, no. 13652.⁹

The *New-York Gazette: or, the Weekly Post-Boy* of February 4, 1762, printed a warning that counterfeit dollars of the cobb kind, made of bell metal and silvered over, had appeared in New York City and could not easily be distinguished from the genuine. [Weyman's] *New-York Gazette* of February 8 repeated the caution about the false dollars and added that counterfeit four shillings, two shillings, and one shilling milled pieces were in circulation in the city. They were of very base metal, had all the appearance of the true ones, but would break at once if one attempted to bend them. The same newspaper on November 29, 1762, published the following item: "The PUBLICK is desired to beware of Counterfeit New-Jersey Thirty Shilling Bills. -- They may be discovered at first Sight, the whole Bill being extremely ill cut, the Letters in no Sort of Proportion, and stand very irregular; whereas the true Bills are neatly done in the common Printing Manner."

One counterfeiter and passer of the cobb type of dollars was apparently James Campbell of Orange Town, yeoman, who on February 3, 1763, agreed with one John Peterse Smith to lodge with him. On April 26 Campbell was indicted by a grand jury for having, on May 1, 1762, counterfeited and passed several Spanish milled dollars and other Spanish silver money, making them of pewter and other base metal. The undersheriff, Barent Martling, finally succeeded in capturing Campbell and called on Robert Campbell, the brother of James, Archibald Livingston and Alexander Coleman to assist in securing and carrying James to prison. They refused, a scuffle ensued, but no rescue

⁹ Ms. Mins. NYCQS 1732-1762, Feb. 3, 1762.

was, it seems, effected,¹⁰ though evidence is lacking as to the outcome of the case.

At a meeting of Quarter Sessions at New York City on June 1, 1763, the mayor produced five counterfeit bills of £10 each altered from 40/ bills, nos. 10907, 4959, 4329, 522 (issued in the year 1760) and 10516 (issued in 1755).¹¹ The only recorded arrest of a suspected counterfeiter in this year was for passing false coin and the individual was Abraham Arie Ackerman, who sometime in the spring of the year was indicted by a grand jury of Orange County for knowingly passing a piece of base metal in the likeness of a good Spanish milled dollar. He was bound over to appear in the Supreme Court of Judicature, where his appearance was recorded on July 26. The following day the court ordered his appearance to be respited to the first day of the next term. On July 30, however, it was ordered that the matter be notified to the judges of the Supreme Court of New Jersey, the province where the offence was committed, and it was requested that the Chief Justice of the Supreme Court of New York signify the same and transmit a copy of the indictment.¹² It seems not unlikely that Ackerman and James Campbell had been associated in counterfeiting or passing false dollars, especially as Ackerman was a co-defendant with Archibald Livingston, John Peterse Smith, and Campbell's brother, Robert.¹³ Incidentally, almost a decade later Ackerman and his wife Lentice are described as "in a poor and destitute Condition, very infirm and unable to get their living."¹⁴

A dispatch from New York, dated May 28, which appeared in the *Pennsylvania Gazette* of May 31, 1764, warned that an abundance of bad pence was to be found in circulation in New York City, and on July 9, 1764, both the *New-York Mercury* and [Weyman's] *New-York*

¹⁰ H.R. Pleadings K 774, K 1002, K 1061; H.R. Parch. 130 K 8 and 160 G 10; Goebel and Naughton, *op. cit.*, p. 182.

¹¹ Ms. Mins. NYCQS 1760-1772, June 1, 1763.

¹² Ms. Mins. SCJ 1762-1764 (Engrossed), pp. 213, 217, 224; Goebel and Naughton, *op. cit.*, p. 297.

¹³ Ms. Mins. SCJ 1762-1764 (Engrossed), pp. 268 and 343.

¹⁴ Ms. Mins. NYCQS 1772-1790, pp. 29-30.

Gazette printed this caution: "The Publick are desired to be cautious in receiving Twenty Shilling Bills of this Province, as one was detected last Week in this City, dated the 10th of December 1737, Counterfeit, being done from a Copper Plate, the whole badly executed." The latter newspaper on August 6 thus warned of a new false bill in circulation: "The counterfeit TWELVE SHILLING Jersey Bills, that made their Appearance in 1761, have again broke out amongst us. -- It requires no great Description to detect the Villany; -- the Public need only take Notice of the Words of the Denomination of the Bill, and they will easily find the Deception in a thin Bit of Paper being pasted on the original Word of THREE."

In 1765 numbers of false forty shilling New York bills were circulating. On February 6, 1765, the Mayor of New York delivered into Quarter Sessions two counterfeits, one of a £3 bill with its number defaced and the other one of 40/, no. 5677. At the meeting of this court on August 8 the mayor produced two counterfeits of 40/ each, nos. 1182 and 1202, while at the meeting of this court on November 7 the recorder brought in three false bills of 40/ each, nos. 1212, 1047, and 6755.¹⁵ The reason for the appearance of these bills was the fact that a gang was hard at work in passing them. One member of the group was taken, and the *New-York Mercury* of November 18 printed the following notice: "On Friday last, Ashur Baton, was, by Order of the Justices of Monmouth County Court, in New-Jersey, pilloried for uttering New-York counterfeit Bills, knowing them to be such; -- -- 'Tis affirmed he had upwards of £1400 with him; -- -- and his Accomplices were about the Country, distributing a greater Quantity of false Bills, even below Philadelphia. The Fellow was most terribly bruised with Eggs, Stones, Dirt, &c. It is certain these Bills are now tendering in New-York; they are printed on Copper Plate, most villainously done, and signed Livingston, Bogart, and Van Horne. -- -- Be ye therefore careful." And to this the *New-York Gazette: or, the Weekly Post-Boy* of November 21 added its warning that counterfeit forty shilling New-York bills were "passing about."

¹⁵ Ms. Mins. NYCQS 1760-1772, Feb. 6. Aug. 8 and Nov. 7, 1765.

XI

THE YEARS 1766-1769

On February 3, 1766, both the *New-York Mercury* and [Weyman's] *New-York Gazette* cautioned the public to beware of false New Jersey £3 bills dated April 23, 1761 and 30/ bills dated April 8, 1762, April 16, 1764. The same two newspapers on February 17 carried, under a Philadelphia dateline of February 13, the following description of the counterfeit New Jersey bills: "There are three Emissions of them, two of Thirty Shillings, dated in 1762, and 1764; the first are badly done, and may be discovered from the whole Face of the Bill, the printing Letters running into the Escutcheon; but those of 1764 are so well done, that they are very difficult to be discovered; the only sure Mark is, that on the Back, at the Stem of the Sage Leaf, in the true Bills, is 30 s. but the false bills have only the s. 30 is left out. -- The Counterfeit Three Pound Bills are dated 1761, and not so well printed as the true Ones; the Impression is deeper in the Paper, and in the Word PLATE the P is right over the A of April, in the false Bills, which is not so in the true Ones. -- It is supposed these Counterfeit Bills came to New-York in one of the last Vessels from England, and that a large sum is already passed there." To this account, identical in both papers, the *New-York Mercury* added: "One of the Accomplices, we hear, is in New-York Goal, and another of them, one Michael Smith, is said to be gone into New-Jersey, with a large Sum of false Money, to purchase Cattle. -- -- -- The above Description is the best we can give at present, from Information we have received, not having seen any of the Counterfeit Bills."¹

A second Philadelphia dispatch, dated February 20, appeared in both [Weyman's] *New-York Gazette* and the *New-York Mercury* of February 24, and read:

¹The same Philadelphia dispatch was reprinted in the Supplement to Holt's *New-York Thursday's Gazette* of February 27, 1766, pp. 2-3.

In our last we cautioned the Public to beware of counterfeit New-Jersey Three Pound Bills, dated in 1761; and Thirty Shilling Bills, dated 1762 and 1764; since which we have seen the following Counterfeits of that Money, viz. Three Pound Bills, two different Sorts of Twelve Shilling Bills, and a Six Shilling Bill. They are all badly done on Copperplate, the Letters being very irregular, and standing much out of the Line; whereas the true Bills are neatly and regularly done, in the common printing Manner. In the first Line of the Face of the Counterfeit Three Pound Bills, the O in POUNDS is shorter and thicker than the other Letters in that Word; and in the third Line the last E in JERSEY is not like a Printing E, but is made in the Manner commonly used in Writing. — The Twelve Shilling Bills are both dated April 12, 1760. one Sort may be discovered by having a black Line about the Flowers which are around the T, in the Word THIS; also in the Arms, the lower Part of the Unicorn's Body appears naked, and the Words in the Garter, and of the Motto, are plainer than in the True Bills; and at the Back instead of the Printer's Name, Parker, it is made Parke. The other Sort is printed on Writing Paper; in the third Line, after the Word Ounce, instead of [●●] Fifteen, is made [●●] Fifteen. — The Six Shilling Bills are dated December 31, 1763; in the Escutcheon, in the Word JERSEY, the J is made Bottom upwards; in the third Line, the S in JERSEY is smaller than the other Letters of that Word; and in the next Line, after Grains, is of which should be of — The above Counterfeits are all printed on three Folds of Paper, pasted together (except the last of the Twelve Shilling Bills) but the true Bills are only on two Folds. In short, they are all so ill executed, that we think, after this Notice, no Body can be imposed on by them. The Three Pound Bills are dated April 8, 1762.

There have likewise appeared some New-Jersey Three Shilling Bills altered to Twelve, by having the Word Twelve pasted over the Place where Three should be, which may be discovered by its looking fresher than the other Part of the Bill.

The person responsible for the appearance of these false New Jersey bills was one "Captain" John Davis. The *New-York Mercury* of March 24, 1766, announced: "A certain Gentleman, who goes by the Name of John Davis, alias Joseph Daniels, and lately brought into this Government a large Quantity of New-Jersey Bills of Credit,

printed in England, was, a few Days ago, apprehended in Orange County, and committed to Tappan Goal; and upon searching it was found he had about him no less than £3500 of that Cash, all signed by himself, but he declared he never had passed any of it." He was removed from Orange County jail and on April 8th lodged in the City Hall of New York.² The grand jury on April 22 preferred two indictments against John Davis, late of the City of New York, laborer: one was for deceit in passing counterfeit New Jersey bills and the other for deceit in procuring false Jersey bills of credit to be passed. It was in the latter specifically charged that Davis on January 23, 1766, in the West Ward of New York City delivered to Michael Smith three counterfeit £3 bills of New Jersey and four 30 shilling bills of the same province and to William Gilliland three 30 shilling Jersey bills with the intent that these men pass the false bills in question. It was also charged that on that day Smith passed off New Jersey counterfeits as follows: one of £3 to John Divan, one of £3 and one of 30/ to Moses Sherwood, one of 30/ to Theophilus Hardenbrook, one of £3 to John Plantaine, one of 30/ to Arnout Cannon, and one of 30/ to John Cox. The jurors also presented that Gilliland passed three false bills, one of 30/ to Dennis McCreedy, one of 30/ to William Newman, and one of 30/ to John O'Bryan. The witnesses for the King included Smith, Gilliland, the persons to whom they passed the bills, and also James Leary, John Mott, Joseph Towers, Catharine Johnson, Susannah Burrows, Thomas Welch, William Chease and Mary Chease.³

The following day in the Supreme Court Davis pleaded not guilty. He was tried on April 24, when, together with some of those mentioned above, John De Noyelles and Mary Clarke gave evidence against him. The jury convicted him on both indictments, and on July 31 the court sentenced him to stand on August 6 in the pillory for one hour

² *New-York Mercury*, April 14, 1766, p. 2.

³ Ms. Mins. SCJ 1764-1766, p. 380 and the original indictment of John Davis "for procuring false Jersey Bills to be passed," now among New York Documents in the Library of Congress, Washington, D.C.

between the hours of ten and twelve in the forenoon. Then he was to be committed to the custody of the Sheriff of New York until the first Thursday in the October term and from then until bail should be given in the amount of £500 by himself and in the amount of £250 each by two sureties for his good behavior for one year from the date of such recognizance.⁴ On November 1, 1766, Davis entered into the prescribed recognizance, as did his two sureties, Dennis Hicks of Peek's Kill, Westchester County, ship carpenter, and Thomas Martin of New York City, skinner.⁵

Davis' agents, Michael Smith and William Gilliland, were indicted, Smith on April 22 for deceit in passing counterfeit New Jersey bills. Two days later Smith entered into a recognizance in the amount of £100, with two sureties, Moses Sherwood of New York City, vintner, and John Young, of New York City, vintner, each in the amount of £50, for Smith's appearance before the Supreme Court in July. On August 1, however, when three proclamations were made and no one appeared to prosecute, the court ordered that he be discharged, paying his fees.⁶

The Supreme Court on August 26 ordered the attorney general to file an information against Gilliland, who was to stand committed until he should provide bail on the same terms as Smith to appear at the July term. The information "for passing Jersey Counterfeit Bills of Credit" was filed on July 29 and on the next day he pleaded not guilty. His case then disappears from the minutes of the court and it is very likely that there was no prosecution.⁷ During the October term of the court in the following year Gilliland was again indicted, this time for allowing men and women of bad name in his house "Drinking Tipling whoreing and misbehaving themselves," of which he was convicted, and he was sentenced to stand an hour in the pillory,

⁴ Ms. Mins. SCJ 1764-1766, pp. 380, 381, 394 and Ms. Mins. SCJ 1764-1767, p. 153.

⁵ Ms. Mins. SCJ 1764-1767, p. 193 and Ms. Mins. SCJ 1766-1769, p. 29.

⁶ Ms. Mins. SCJ 1764-1766, pp. 381, 382, 396 and Ms. Mins. SCJ 1764-1767, p. 154.

⁷ Ms. Mins. SCJ 1764-1766, pp. 380, 382, 383, 390 and Ms. Mins. SCJ 1764-1767, pp. 145, 147, 150.

to be imprisoned for twelve months, and to put up a bond of £100 for his good behavior for two years.⁸

Others probably implicated by John Davis were Bernardus Bratt, Daniel Coe and Jeremiah Knap. Bratt was apparently indicted for a "deceit" the same day as Davis and Smith, and on November 1, 1766, a jury gave judgment for the King against Bratt.⁹ As for Coe and Knap, it will be recalled that Davis was arrested in Orange County in March with £3500 in counterfeit bills on him. On May 14 at a court of general sessions of the peace of Orange County, held at Orange Town, Coe and Knap were presented by a grand jury "for passing Counterfeit Bills."¹⁰ It seems probable that they, like Smith and Gilliland, and probably Bratt, were passing false bills supplied by Davis. There is no further entry in the court minutes concerning Knap, but Coe appeared at a court held at Goshen on November 11, when his case was continued until the next sessions. At that court, held in Orange Town on May 12, 1767, Coe was called and, when he did not appear, his recognizance was respited until the following day. He again did not appear and it was ordered that his bail be forfeited.¹¹ It would seem that he feared conviction and fled.

It was the activity of Davis and his accomplices which caused the New York assembly to pass on July 3, 1766, an "Act to make it Felony without Benefit of Clergy to counterfeit the Bills of Credit of any of his Majesty's Colonies, which pass in Payment in the Colony of New York." As has been noted, Davis was indicted and punished after conviction merely for a "deceit," since his counterfeits were the bills of another province. The new act, intended to deal with such situations by fixing the most severe penalty, read:

WHEREAS many evil disposed and wicked Persons have lately counterfeited, and circulated in this Colony, large Parcels of Bills, in Imitation of

⁸ H.R. Pleadings K 343 and Ms. Mins. SCJ 1766-1769, pp. 317-324.

⁹ Goebel and Naughton, *op. cit.*, p. 449, note 45 and Ms. Mins. SCJ 1764-1767, p. 193 and Ms. Mins. SCJ 1766-1769, p. 29.

¹⁰ Ms. Mins. Orange Co. Sess. 1727-1779, p. 156.

¹¹ *Ibid.*, pp. 158, 160, 161.

the true Bills of Credit struck emitted and Issued in the Colony of New Jersey; and have passed the same as good and true Bills of Credit, to the great Hurt and Damage of his Majesty's Subjects of this Colony. For prevention whereof and other the like Mischiefs for the future.

BE IT ENACTED by his Excellency the Governor, the Council and the General Assembly, And it is hereby enacted by the authority of the same, That if any Person or Persons shall hereafter counterfeit any the true Bill or Bills of Credit now or which shall hereafter be Struck emitted and issued in the said Colony of New Jersey; or the Bill or Bills of Credit now or hereafter to be Struck emitted and issued by any other of his Majesty's Colonies, or Shall alter any of the said Bills of Credit, so that they shall appear to be of greater Value than the same by the Law of such respective Colony, or shall or may be intended to pass for; or shall pass or give in payment any such counterfeit or altered Bill as aforesaid knowing the same to be Counterfeit or altered every person who shall so counterfeit or alter any the said Bills of Credit, or knowingly pass or give in Payment any such Counterfeit or altered Bill as aforesaid, shall be guilty of Felony, and being thereof convicted, shall suffer the Pains of Death as in Cases of Felony without the Benefit of Clergy any Law usage or Custom to the Contrary hereof in any wise Notwithstanding.¹²

On Tuesday, August 26, 1767, an elderly man named Timothy Green, lately from North Carolina, applied to Elisha Gallaudet, an engraver in New York City, to procure of him plates to counterfeit the current money bills of the province from which he had come. Gallaudet, however, had the would-be-counterfeiter taken before an alderman, who, after examining him and finding two false dollars in his possession, committed him to jail. Green was indicted in the Supreme Court on October 29 "for a Misdemeanor," pleaded not guilty, and on October 30 was tried. The jury, without going from the bar, convicted him, and when, on the next day, the attorney general moved for judgment, the court ordered that the prisoner stand in the pillory on Wednesday next for one hour between the hours of ten and

¹² *The Colonial Laws of New York* IV, p. 906 and the *New-York Journal, or General Advertiser*, July 10, 1766, p. 3.

twelve in the forenoon and that on Thursday next he be whipped through the town at the cart's tail and receive thirty-nine lashes on the bare back.¹³

Although the plague of false Jersey bills had been checked, New Yorkers had to be on their guard against counterfeits of their own currency and also spurious dollars. In Quarter Sessions in New York City the mayor produced the following counterfeit New York bills: at the meeting of February 4, 1766, one £10 bill altered from a 40/ bill, no. 19355 and dated April 2, 1759, a £6 bill, no. 82061, dated July 1, 1714, a £2 bill, no. 2263, dated April 20, 1760, and also two 40/ bills without any number and dated April 21, 1760; at the session of August 7, 1766, fifteen 40/ bills, of which three bore the numbers 5362, 173 and 5650 respectively, while the remaining twelve, all dated April 21, 1760, were neither numbered nor signed.¹⁴

Warnings to the public about false dollars in circulation began to appear in the press in November, 1766, and continued into June of the next year. The *New-York Mercury* of November 10, 1766, printed the following: "The Publick are desired to take Notice, that there are Counterfeit Dollars now passing among us, dated in the year 1756, and so well executed that it is difficult to discover them from the true Ones [PLATE XIII, I]; they are stamped from whited Copper, almost full Weight, and the best method to discover them is by rubbing the Edge on Leather or Woolen Cloth; the false ones will leave a Yellow Mark behind, and the true, white: The Crown on the Top of the Right Hand Pillar, is not so full nor so close to the Pillar as the true Ones."¹⁵ On June 1, 1767, the same newspaper published a notice that counterfeit dollars, dated 1747, which were rather larger than the good ones and which might be easily distinguished by the sound were circulating

¹³ The *New-York Journal, or the General Advertiser*, Aug. 27, 1767, p. 3; the *New-York Mercury*, Aug. 31, 1767, p. 3; Ms. Mins. SCJ 1766-1769, pp. 317, 319, 323, 326.

¹⁴ Ms. Mins. NYCQS 1760-1772, Feb. 4 and Aug. 7, 1766.

¹⁵ Holt's *New-York Journal, or General Advertiser* of Dec. 11, 1766, p. 3 tells of the discovery of false dollars and bills elsewhere and urges that people therefore be careful in receiving money.

in New York.¹⁶ And finally the *New-York Journal; or, the General Advertiser* of June 25, 1767, warned:

The Publick are hereby caution'd to beware of counterfeit Dollars, many of which have lately been discover'd. They are so well finish'd, as hardly to be distinguish'd from good ones by a close Inspection. We have only now an Opportunity to describe those of one of the Dates, viz. Ferdinand's of 1747. The Metal is rather duller than the generality of the true ones, and often one Side or t'other a little scratch'd as if touched with a File, the Size a small Matter broader and thicker, and does not ring so well as the true ones. The Inscription is nearer to the Edge of the Metal on one Side than the other, and the indenting on the Edges is less distinct and neat than the true ones, but the most remarkable Distinction is on the Edge right over the Point (.) after FERDND. on the Arms Side; and over the Rose, after VNUM, on the Pillar Side, where there is in some of them an Inequality, in others a Flaw, as if in that Place the Metal had been pour'd into the Mould.¹⁷ [See PLATE XIII, 2 for illustration of genuine piece.]

Attention has been already called to the rather large number of counterfeit forty shilling bills of New York which were destroyed in Quarter Sessions in 1766. This denomination of counterfeit kept appearing during the next three years. The *New-York Journal; or the General Advertiser* of August 13, 1767, informed its readers that several of these bills had been lately discovered passing in New York City. They were dated April 21, 1760, and very badly executed, with the letters and figures not well formed and the lines crooked. The notice concluded thus: "The two Weights are without the black Dots on the Sides which the true ones have, the Words *Two Pounds* (after the Arms) which are placed across the end of the Bill, are remarkably ill done, crooked, ill formed and disproportioned; the least Attention will discover them to be Counterfeit."¹⁸ The *New-York Gazette; and the Weekly Mercury* of December 12, 1768, also published the caution

¹⁶ This item was reprinted in the *New-York Journal; or, the General Advertiser* of June 4, 1767, p. 3.

¹⁷ The *New-York Mercury* of June 29, 1767, p. 3 and [Weyman's] *New-York Gazette* of June 29, 1767, p. 4 reprinted this item.

¹⁸ The same was also printed in [Weyman's] *New-York Gazette* of Aug. 17, 1767, p. 3.

that many New York £2 bills were current, done from a copper plate and so badly executed as to be discovered easily on close inspection. They were dated April 21, 1760, signed John Van Horne, Elias Desbrosses and R. G. Livingston, and one of them was in the possession of the printer of the *Mercury*. And again, on February 20, 1769, the *New-York Gazette: or, the Weekly Post-Boy* issued a warning to the public to beware of this denomination with the three signers mentioned above and with the date of April 12, 1760. The notice continued: "They are very ill done, and may be discovered upon the first View, by any Person acquainted with Paper Money. -- There were three found on Friday last, that has been passed by one Woman. The House was searched by Authority, but no Discovery could be made of any more. -- She keeps a Tavern, and upon her being examined, could not give any Account from whom she had them, but said she had them by her for some Time. -- A bad Bill of the same Emission, was stopped some Time ago by the Mayor, which had been passed by a Man from New-England; and another by a Justice in Dutchess County."¹⁹

It is probable that some of the New York forty shillings bills were the handiwork of Gideon Casey and his associates, and he may also have made some of the false dollars against which the public had been cautioned. The *New-York Gazette; and the Weekly Mercury* of February 15, 1768, gave the following report concerning Casey:

Last Week the Hon. WILLIAM SMITH, jun. Esq., received a Letter from a Gentleman at Fairfield, in Connecticut, acquainting him, that a Schooner had lately been at that Place, and remained there 6 Weeks, with 5 Men on board, that they had passed some Counterfeit York Bills, that they came from Rhode-Island, and that he imagined they were come our Way; this Intelligence being communicated to the Mayor, he immediately sent proper Officers in Search of the Schooner, who found her just on the Point of sailing, and in the said Vessel also found Gideon Casey, and his two Sons, Tibbits Hopkins, and Daniel Willcocks, alias Chase, also a small

¹⁹ The *New-York Journal; or, the General Advertiser* of Feb. 23, 1769, p. 3 reprinted this account.

Bag containing all the Instruments for coining and milling of Dollars, of the Years 1763, and 1764, Plates for North-Carolina Money, Instruments for making Pistereens, and several Forty Shilling Bills of this Province, dated April 21, 1760. They were all committed to Goal, and being examined, Casey said, that some of the bad Bills were passed in this City but that all the Instruments were left in his Possession about three Years since, and given to him by one Howe, a noted Money Maker from Boston Government.

The *New-York Gazette: or, the Weekly Post-Boy* of February 15 gave essentially the same account but added a few details: they had, it seemed, passed some bills at Fairfield and had changed a sum with a young man of that province for Connecticut bills; Casey claimed he had never made any use of the implements left in his custody by Howe; Casey and his associates maintained that they were going up the North River, but the general belief was that they were bound for North Carolina; Hopkins was the master of the schooner. The item concluded: "The *New-York* Bills are very badly done, from a Plate, and may be easily distinguished from the true Ones by comparing. It is supposed that they have vended many in different Parts, tho' only two has been found yet passed in this City. They were all committed to Goal, and stand fair for meeting the Reward due to their great Ingenuity."

The *Supplement to the New-York Journal; or, the General Advertiser* of February 20, 1768, reproduced the account from the *New-York Gazette; and the Weekly Mercury*, but with the following addition: "We hear from Fairfield, that several Men suspected to belong to the same Gang as the above, are in Goal in that Town for Counterfeiting Money. -- That it is said they have established a regular Chain of Communication throughout the whole Extent of the British Dominions in America, and that there are about an Hundred of them concerned in the different Provinces."

Two days later the *New-York Gazette: or, the Weekly Post-Boy* of February 22 added new developments: "We hear from *Fairfield*, in *Connecticut*, that no less than 9 Persons were apprehended there last Week, as Confederates with *Gideon Casey*, and the four others now in

our Jail on Suspicion of counterfeiting Money; five of which were committed to Jail there for Trial, the other four admitted to Bail; It is said they have Confederates in several other Governments, and it is to be hoped the Bottom of that iniquitous Affair will now be discovered."

The outcome of proceedings in Fairfield was given by the *Supplement to the Massachusetts Gazette* of March 24, 1768, in a dispatch from New Haven, dated February 26. It read: "Last Friday, pursuant to the sentence of the Superior Court, then sitting at Fairfird, Archibald Fippeny, Lewis Bennet, John Mallet, and Nathaniel Bunnell, were crop't, and branded with the letter C on their Forehead's, for counterfeiting the lawful money bills of this colony, New-York bills, dollars, &c. -- Seven others, were try'd, at the same court, on suspicion of being their accomplices, with them in the same crimes, but the evidence not being sufficient to convict them, they were discharged. -- Seth Porter, and ——— Sturges, not chusing to be try'd forfeited their bonds for appearance, the former one thousand pounds, and the other five hundred. -- They were in partnership with a gang lately taken up at New-York ... " The newspaper then briefly told the story of the apprehension of Casey and his party and added that on their schooner were found recipes for smelting and varnishing metals.

It might have seemed that Casey and the four with him would have been convicted and punished, but such was not the case, and the printer of the *New-York Gazette: or, the Weekly Post-Boy* of April 4, 1768, was obviously puzzled when he wrote: "The five Persons committed on suspicion of counterfeiting Money (tho' both Stamp and Plates for the Purpose were found in their Possession) were indicted; but were cleared, for want of sufficient Evidence." It may be added that Joshua Howe, who had supposedly left counterfeiting equipment with Casey, was taken in April at Cohass in New Hampshire and committed in that province on suspicion of counterfeiting dollars. The *New-York Gazette; and the Weekly Mercury* of April 18, 1768, in recounting Howe's arrest, commented: "It is said there is a Clan of these Gentry of at least 500, who correspond thro' all the Colonies,

9*

as far as North-Carolina. Howe denies being concerned in manufacturing any money, but acknowledges he lets out certain Tools at ten Dollars per Day."

Perhaps one member of the counterfeiting "clan" was a certain William Stevens. All that is known of him is that on January 4, 1769, he came under bail into the Court of Quarter Sessions of the Peace of Dutchess County and his appearance was entered in the minutes, while the following day Justice Humfrey delivered a counterfeit forty shillings bill of New York and it was sworn to William Stevens.²⁰

One person who in all probability was connected with Gideon Casey's gang was John Jubeart, whose arrest was thus reported in the *New-York Gazette; and the Weekly Mercury* of May 15, 1769: "Wednesday last was committed to our Goal, for passing counterfeit Dollars, a certain John Jubeart, born on Staten-Island, a Blacksmith by Trade, The Quantity found upon him was ten in Number, 9 of which were dated 1763, and one 1761: They are struck with a Die, the Edges milled, and appear of a dirty white Colour, tinged with yellow. they are very little lighter than the true Ones, the Impression is not so high or broad, the two Globes between the Pillars appear Sunk, and the Edge of an unequal Thickness, the Milling of which in one Place is not joined: They ring well, and are supposed to be a Compound of Copper and Tin, lightly silvered over, which may be easily scraped off."

Two other New York newspapers of the same date added other details. The *New-York Chronicle* reported:

On Thursday last one John Jubeart, was committed to Goal for passing false Dollars. Upon Examination before Alderman Gautier, he said that he was born upon Staten-Island, and followed the Business of a Tinker. There was a Millinx²¹ found upon him, and an Instrument which he said he used to straiten Gun Barrels. – He had passed some of the bad Dollars in this City, which were brought in and delivered to the Alderman. Upon

²⁰ Ms. Mins. Dutchess Co. Sess., Liber D, Jan. 4 and 5, 1769.

²¹ Millinx probably is a misspelling for millink, a piece of iron crossing the hole in the upper millstone by which the stone is supported on the spindle.

his being detected and threatened to be carried before a Magistrate, he endeavoured to make his Escape, and went into the Old Slip-Market, where he buried some Dollars among a Parcel of Rubish, which were taken up by some People who had observed him, and produced at his Examination. — The Public are desired to observe, that the Mounts upon the Side of the false Dollars, instead of being raised are indented, and the Milling upon the Edges open and distinguishable from a Genuine Spanish Dollar.

The other newspaper account, that in the *New-York Gazette: or, the Weekly Post-Boy*, ran as follows:

Tuesday last an elderly Man who calls himself *John Jubeart*, was apprehended and carried before a Magistrate in this City, on suspicion of counterfeiting Spanish Mill'd Dollars: — He had pass'd two or three of them, with different Persons, one of which, suspecting the Fraud, detected him, whereupon he pretended to want to ease himself, and went down to the Dock, where he was seen to attempt hiding something in the Dirt, which being searched, a Purse with six more Dollars of the same kind, and several Implements for counterfeiting were found. On his Examination he said, he was born on *Staten-Island*; was a Blacksmith by Trade, and had formerly followed that of a Tinker, in all the Colonies from *Boston* to *North-Carolina*: — That he had lived near three Years past at *Stockbridge* in *New-England*, and the back Parts of Dutchess County; that he had received the Dollars from some People at the Fish Kills, and did not know they were false, and came to this City on Monday Night last: — The Dollars seem to be artificially made, except a small Notch or Breach in the Milling, which does not join well, and the Globes on the Face of them appear to be sunk in rather than rais'd; they ring well, but are of a base Metal, and bad Colour: — Several Pieces of Metal of the same base kind were found upon him, with some other Implements, and by some loose Hints he appears to have been acquainted with Casey's Gang, there is not much Room to doubt his being one of them: He was committed to Jail, for further Examination.

Jubeart was indicted on July 26 in the Supreme Court on two counts, for passing a false piece of eight to Evert Byvanck, Jr., and for passing another to Susannah Marshall. His trial took place on July 28. The witnesses for the King on the first indictment were

Evert Byvanck, Jr., and Andrew Gautier, while the evidences for the prisoner were John Vanderspeigle and Dirik Schuyler. On the second indictment witnesses for the King were Susannah Marshall, Ann Burk, Thomas Moore and Matthew McDaniel. The jury found the defendant guilty on both indictments and that he had no goods or chattels. On July 29 the court sentenced him to be hanged on Wednesday, August 23.²³

It was, however, represented to the governor's council that, if Jubeart should be reprieved for a short time, there was a probability that he might make some useful discoveries, and the governor, with the advice of the board, respited Jubeart until Wednesday, August 30.²⁴ His sentence was again respited, this time to Wednesday, September 6,²⁵ when he was finally executed at Stonefence near the city, seemingly very penitent and denying that he had any accomplices.²⁵

Another suspected counterfeiter, one Peter Lynch, was more fortunate. The grand jury indicted him on August 4, 1769, in Quarter Sessions in New York City for altering a New Jersey bill from three shillings to three pounds and passing the same, and it was ordered that the clerk of court deliver the indictment into the Supreme Court of Judicature.²⁶ Lynch appeared before that court on October 28 and declared that material witnesses for him were absent. When the attorney general further informed the court that the evidence for the King was, he believed, insufficient to convict the defendant, the court ordered that Lynch be admitted to bail. Thereupon Lynch entered into recognizance in the amount of £100, and one William Deane of New York City, coachmaker, in the amount of £50 for Lynch's

²³ Ms. Mins. SCJ 1769-1772, pp. 62, 63, 64, 65, 69; the *New-York Gazette: or, the Weekly Post-Boy*, July 31, 1769, p. 3; *New-York Chronicle*, Aug. 3, 1769, p. 111; *New-York Journal*; or, the *General Advertiser* Aug. 3, 1769, p. 3.

²⁴ Ms. Mins. Council 26, p. 155; *New-York Chronicle*, Aug. 24, 1769, p. 135; *New-York Gazette: or, the Weekly Post-Boy*, Aug. 28, 1769, p. 3.

²⁵ *New-York Gazette: or, the Weekly Post-Boy*, Sept. 4, 1769, p. 3.

²⁶ *New-York Chronicle*, Sept. 7, 1769, p. 151; *New-York Journal*; or, the *General Advertiser*, Sept. 7, 1769, p. 3; *New-York Gazette: or, the Weekly Post-Boy*, Sept. 11, 1769, p. 3.

²⁷ Ms. Mins. NYCQS 1760-1772, Aug. 4, 1769.

appearance at the Supreme Court to be held at City Hall on the third Tuesday in January next. The trial was held on January 17, 1770. The witness for the King was Abraham Rice, while Ann Lynch, Elkanah Deane, Peter Hall and Elizabeth Hernon were witnesses for the prisoner. The jury, without going from the bar, acquitted Lynch, who was ordered discharged on the payment of his fees.²⁷

Lynch had been charged with altering and passing a Jersey bill, and some false money of that province was, indeed, passing in New York City. On August 24, 1767, the *New-York Mercury* cautioned the public to take care in receiving six shilling New Jersey bills, dated December 31, 1763, and signed *Smith, Johnston* and *Skinner*. They were described as done from a copper plate and so badly executed as to be distinguished easily. In the word, December, there was an r for an m, and most of the t's in the bill resembled f's. The *New-York Journal; or, the General Advertiser* of November 23, 1769, printed a Philadelphia dispatch, dated November 16, cautioning people to beware of New Jersey twelve shilling bills dated June 22, 1756. They were done with common printing types; the arms were badly cut, as also the leaf on the back; the face and back were printed on two pieces of paper pasted together, not as thick as the true bills, and the counterfeits appeared much soiled to prevent their being detected; the number and signer's names seemed to be written by the same hand and in the same ink and appeared to be done lately; the names of the signers were not intelligible.

At the close of 1769 the *New-York Gazette: or, the Weekly Post-Boy* warned, in a Philadelphia dispatch dated December 7, of counterfeit £3 bills of New Jersey which were dated April 16, 1769. It then gave the following description of them: "They are very badly cut, and stamped; the letters most irregular, and in general larger than the true bills; the arms, and other ornaments, ill done, and appear very pale: The Three POUNDS, at the top of the bill, are placed at a greater distance from the left-hand ornament, than in the true ones. The A, in the Word April, remarkably large, and the THREE

²⁷ Ms. Mins. SCJ 1769-1772, pp. 120 and 143.

POUNDS, at the bottom of the bill, considerably larger than in the true bills. There are two sorts of them, but both so badly done, that they may easily be detected, after this notice. The backs appear to be done with a pen, and the word Woodbridge, in some of them, is spelt Woodbrige." The same notice was printed in the *New-York Chronicle* of December 18 and in the *New-York Gazette; and the Weekly Mercury* of the same date, except that the *Chronicle* stated the counterfeits were dated April 16, 1764, rather than 1769.

XII

THE YEARS 1770-1772

Early in 1770 counterfeit dollars were circulating on Long Island and in New York City. One Isaac Ketcham was apprehended at Huntington, Long Island, by order of the magistrates of that place for passing counterfeit dollars but escaped from the constables on February 5. He was described as about five feet eight inches high, with a blemish on one of his eyes, appeared well dressed and rode a good horse. A reward of three pounds was offered to anyone who should apprehend him and bring him to Constable Timothy Conkling at Huntington. Ketcham's coins, dated 1762 and 1765, seemed to be made very neatly but on being rubbed would appear copperish, since they were mostly of that metal.¹ Ketcham had previously been in trouble with the law, for during the July, 1753, term of the Supreme Court Attorney General William Kempe informed that Ketcham the younger of Huntington had assaulted a certain Samuel Plumbe "so that of his Life it was greatly despaired;"² later, in October, 1762, Ketcham appeared before the Court of General Sessions of the Peace of Suffolk County -- the charge is not known -- and submitted to the mercy of the court and was fined forty shillings.³

A warning about false dollars was printed in the *New-York Gazette; and the Weekly Mercury* of April 2, 1770, and reprinted in the *New-York Journal; or the General Advertiser* of April 12. It read: "The Public are caution'd to beware of counterfeit DOLLARS, which are now passing among us; they appear to be made of Blanched Copper, and are extremely well done, except, that the I, and H, in the Word HISPAN, are at too great a Distance; and the I, S, P, and A, in the

¹ *The New-York Gazette; and the Weekly Mercury*, Feb. 19, 1770, p. 3; *The Massachusetts Gazette; and the Boston Weekly News-Letter*, March 1, 1770.

² H.R. Pleadings K 628.

³ Ms. Mins. Suffolk Co, Sess. 1760-1775, Oct. 6, 1762.

same Word, very much crouded; and the S, and A, much smaller than the other Letters. They may easily be discovered by the ringing of them, as they sound much shriller than the true ones."

The public was notified two weeks later by an item in the *New-York Gazette*; and the *Weekly Mercury* of April 14 that there were passing in the city counterfeit New Jersey bills of twelve shillings, dated December 31, 1763, and signed Johnston, Smith and Skinner [PLATE II]. They were printed with common types and so badly done they could easily be discovered on close inspection. Twelve shilling bills altered from three shillings had also made their appearance in New York City.⁴ One Lewis Jones of that city, a printer, was arrested, apparently on April 4, on the charge of passing counterfeit New Jersey money, and two innkeepers made depositions before Justice Whitehead Hicks that they had received false money from Jones. One witness, Thomas White, swore that on the previous Thursday or Friday evening Jones, accompanied by a man whom they called Hill [probably Martin Still] came to his inn about nine o'clock and stayed until eleven. They had supper, for which Jones paid with a twelve shilling bill of New Jersey. White later paid out the bill to a gardener, Daniel McKindley, who returned it to him as false.⁵ The other witness, Peter Peiser, swore upon oath that on the preceding Saturday or Sunday night Jones, accompanied by another person [perhaps Richard Edwards], came to his tavern and had a bowl of punch. Jones gave his companion a twelve shilling Jersey bill dated December 31, 1763, with which to pay for the punch. Peiser subsequently paid out the bill to a certain John Fowler, who returned it as counterfeit.⁶

In the Supreme Court on April 21, 1770, one Martin Still, probably a companion of Jones, was indicted "for passing counterfeit Jersey money," while three indictments were brought against Jones: one for having on April 1, 1770, "at Montgomerie Ward" of New York

⁴ This same notice was given in the *New-York Journal*; or, the *General Advertiser*, April 19, 1770, p. 3.

⁵ H.R. Pleadings K 688: deposition of Thomas White.

⁶ H.R. Pleadings K 688: deposition of Peter Peiser.

City knowingly passed a three shilling Jersey bill altered to twelve shillings to Joseph Towers; one for having on March 31, 1770, in the North Ward of the city passed a counterfeit twelve shilling Jersey bill to Peter Peiser; and one for having on March 29, 1770, at the Outward passed a counterfeit twelve shillings Jersey bill to Thomas White. Jones pleaded not guilty to all three indictments.⁷ His trial took place on April 23, and the witnesses for the King, on the indictment for passing the bill to Peter Peiser, were Peter and Henry Peiser, John Fowler, Catherine Rice and Whitehead Hicks; the evidence for the prisoner was Richard Edwards. On the indictment for passing the bill to Thomas White, the evidences for the King were Thomas White and Daniel McKindley, while those for the prisoner were Philip Kissick, Joshua Watson, John Jones and James Parker. The jury promptly acquitted Jones on both counts, and on April 25 he was placed on trial on the third indictment, with Joseph Towers, Gregory Springhall and Hugh Gaine, the printer, as witnesses for the King. Again Jones was acquitted and discharged,⁸ and the minutes of the Supreme Court make no further mention of Martin Still.

In December two dispatches from Philadelphia appeared in the *New-York Gazette*; and the *Weekly Mercury*. The first, printed in the number of December 3, was a caution that in Philadelphia false half Johanneses were passing. They were dated 1746, were made of base metal thinly gilded, were somewhat broader and thicker, though lighter, than the true ones, and the letters were not as regular nor the workmanship as good as in the true ones. The other item, in the number of December 10, informed that in Philadelphia counterfeit English guineas were circulating. They were merely English shillings which had been gilded. By February 11, 1771, the false half Joes were passing in New York City, according to the *New-York Gazette*; and the *Weekly Mercury* of that date. The coins were dated 1761, were not above six pennyweight, and one of them was in the hands of the printer of the newspaper.

⁷ Ms. Mins. SCJ 1769-1772, p. 181; H.R. Pleadings K 315, 262 and 383.

⁸ Ms. Mins. SCJ 1769-1772, pp. 184, 187.

About this time two acts for the emission of New York bills of credit were passed, each in the amount of £120,000. The first was passed on January 5, 1770, and the other on February 16, 1771. Both set the penalty of death for counterfeiting and passing in the same formula which had been adopted in the law of December 16, 1737. There were, however, those who were willing to run such a risk, for on June 6, 1771, the *New-York Journal; or, the General Advertiser* advised the public that the £10 bills of the latest emission had been counterfeited¹⁰. A week later the same newspaper printed the following still more disquieting news: "The Public are caution'd to be careful how they receive New-York Money Bills of the late Emission (Feb. 1771) as it appears that every Denomination of the said Bills have been counterfeited; We have not yet had an Opportunity to note and describe the Marks of Distinction between the true and counterfeit Bills of each Value, but in general it may be observed that the true Bills are printed with Printing Types, the Counterfeits with Copper-plate, the Letters of which are disproportioned in Size and Shape, and stand irregularly, easily discernable by nice Inspection. In the counterfeit Ten Shilling Bills, after the Words Ten Shillings in the Body of the Bill, there is no Point or Stop, whereas in the true One's there is a Full point."¹¹

Counterfeiters of coin were detected at about this time in Dutchess County. The *New-York Gazette; and the Weekly Mercury* of June 24, 1771, gave the following account of the affair:

Three Men were committed to Poughkeepsie Goal, a few Days since, on Suspicion of coining and passing Dollars made of base Metal: The following Description of them may be of public Utility. crown side. The O in Carolus badly done. the L in the true ones, exactly over the Rose; in the Counterfeits, between the L and V

True	False
L	L

. The I and P in Hispan. too broad

⁹ *The Colonial Laws of New York* V, pp. 24-46 and 149-170.

¹⁰ The warning was reprinted in the *New-York Journal; or, the General Advertiser* June 13, 1771, p. 3.

¹¹ The *New-York Gazette; and the Weekly Mercury* of June 17, 1771, p. 3 and the *New-York Gazette; or, the Weekly Post-Boy* of June 17, 1771, p. 2 reprinted the notice verbatim from the *New-York Journal; or, the General Advertiser*.

the Rose under $\frac{ET}{\frac{1}{2}}$ the false; in the true $\frac{ET}{\frac{1}{2}}$; in the true there is a Vacancy between ET IND much wider than the false; the 8 and the two Roses at each End, much larger than the true; the Space between IND. and REX too small, the Dot very much, and all the Roses; likewise the Crown too large.

Pillar Side. In the false, the A in VTRAQUE too far from the Top of the Pillar; in the true, it nearly touches. False, the two M, the O at Top too thin, and in a Line with PLUS on the Pillar; the Globes badly done; they are something larger than the true, about 8 Grains lighter, dated 1766 [See PLATE XIII, 3, for illustration of genuine coin.]; they sound well, and are made of blanced or whited Copper.

In September, 1771, counterfeit New Jersey bills of thirty shillings and of fifteen shillings [PLATE IV] made their appearance in New York City. The *New-York Gazette: or, the Weekly Post-Boy* of September 9 warned of the fifteen shillings bill but could give no description, as the printer of the newspaper had seen no specimen. The bills, however, were said to be poorly done and easily recognized. The *New-York Journal; or, the General Advertiser* of September 12 repeated the warning but could give no description. It added, however, that false Jersey thirty shillings bills, dated April 16, 1764 [PLATE VI], were circulating. They were badly executed, especially in the arms and border. They seemed fresh and clean and were signed with the names of John Johnson, Rich. Smith and S. Smith but the signing imperfectly resembled that in the true money.¹²

This same month or shortly thereafter a cordwainer named Samuel Mount was arrested and was indicted in the Supreme Court on October 25, 1771. In one indictment it was charged that Mount "not having the Fear of God before his Eyes but being moved and seduced by the Instigation of the Devil" on July 27, 1771, at the East Ward of New York City, altered a one shilling Jersey bill dated 1763 to fifteen shillings and passed it in payment to Robert Hunt and also that he altered a three shilling Jersey bill to fifteen shillings. The charge in the other indictment was that on October 19, 1771, in the

¹² Also printed in the *New-York Gazette: or, the Weekly Post-Boy*, Sept. 16, 1771, p. 3.

East Ward of the city he tried to pay to Phineas Hunt a thr shillings Jersey bill altered to fifteen shillings.¹³ He was tried t same day, and the witnesses for the King were Robert Hunt, Co stable Abraham Van Gelder, and Justice George Brewerton on t one indictment; on the other the witness for the King was Phine Hunt, while the evidences for the prisoner were Mary Fox, Thom Randall, Eleanor Bean, John Garno, John Stag, George Ulric Cristophel Van Witch, Catherine Ulrick, Margaret Van Witch a Cleora Jacobs. The jury found Mount not guilty of the several charg against him and the court ordered him discharged.¹⁴

The *New-York Journal; or the General Advertiser* of October 3 1771, printed an advertisement, dated October 22, which afford new evidence of the counterfeiting of the New York bills of the late emission. The advertisement, signed by Joseph Hanford, read follows:

A Caution to the Public: About the 3d inst. a small young man, w call'd his Name Ward, (in Company with two others, who went by t Names of Thompson and Johnson) came to my Store in Fairfield a passed a Five Pound Bill, which proved to be a Counterfeit of the l Emission of New-York Money Bills; and it is thought these Men had w them Counterfeit Money of all Sorts, New-Jersey and New-York Bills, a Dollars. Ward is about 6[sic!] Feet 5 Inches high, had on a short bro lapelled Coat, a red double breasted Waistcoat, and black Breech Thompson about 5 Feet 10 Inches high, thin Visage, black Complexi and Hair; had on a dark broad Cloath Coat, and a striped Waistco Johnson, about 5 Feet 11 Inches high, fair Complexion, light Hair, a had on a light blue Coat. Whoever detects and brings these Fellows Justice, will do a Benefit to the Public.

One of the trio might have been a certain John Smith, who in a event was a counterfeiter of New Jersey and New York money.

¹³ Ms. Mins. SCJ 1769-1772, pp. 444-445; H.R. Pleadings K 350 and 237; J. T. Kem Lawsuits, Samuel Mount.

¹⁴ Ms. Mins. SCJ 1769-1772, pp. 445-447; the *New-York Gazette; and the Wee Mercury*, Nov. 4, 1771, p. 3; the *New-York Journal; or, the General Advertiser*, Nov 1771, p. 3.

was arrested and convicted in Connecticut before the Superior Court of counterfeiting such bills and was imprisoned in the Hartford jail. On the night of January 27, 1772, he broke out and escaped. He had for some years been a resident of Suffield, where it was believed that his chief occupation was the making, in company with others, of false bills.¹⁵ Sheriff Ezekiel Williams, in an advertisement inserted in the *Connecticut Courant* of January 28, 1772, described Smith as "a likely prompt looked youngerly man, somewhat short of stature, wears his own hair," and offered for his capture the sum of six pounds. The same newspaper of March 17, 1772, reveals that Smith was apprehended and sentenced in the Superiour Court in Hartford "to have his right ear cut off, and be branded on the forehead with the letter C, his estate confiscated, be confined to a workhouse for life, and be kept to hard labour under the care of a master, and that he not depart therefrom, under penalty of being severely whip'd."

The *New-York Gazette; and the Weekly Mercury* of December 16, 1771, printed the following caution to the public: "To beware of Counterfeit Money, several Kinds of which, both Gold and Paper (New-York, and New-Jersey Bills) have lately been circulated, particularly Half Joes, which tho' of due Weight, have in each 12 s. Sterling of base Metal; and New-Jersey 30 s. Bills dated the 16th of April 1764 [PLATE VIII].

"The Counterfeits of the Half Joes, are somewhat thicker, the Figures less prominent, and the colour paler than the true ones."

The item continued by giving marks of distinction by which to tell the false from the true thirty shilling Jersey bills. The true bills were on yellowish paper; the number was plain and distinct; the sage leaf was perfect, spreading from the stem; the arms were blurred and indistinct, as was the border; the red letters were lighter than in the false bills and were more perfectly formed and proportioned. The counterfeits were on a paper of a blueish cast; the number was indistinct; the sage leaf was imperfect, for the part where it rises from the stem was cut off; the arms were distinct and plain and the

¹⁵ *The Massachusetts Gazette; and the Boston Weekly News-Letter*, Feb. 6, 1772, p. 2.

border was plain and open, resembling a vine with leaves. The letters were deeper than in the true bills and of a purple cast; the letters were ill formed, disproportionate, and irregular, particularly in the word "Shillings" at the top of the bill.

Another counterfeited Jersey bill [PLATE X] was thus described in the same newspaper of February 3, 1772: "Several Counterfeit Jersey *Three Pound Bills* are are now current among us, dated 31st of Dec. 176, signed *Smith, Johnston* and Skinner: They are well executed, but the Coat of Arms and bordering appear more plain than in the true Ones. The Words, *New-Jersey, Three Pounds*, on the Margin of the Sun, very visible and plain on the counterfeits, and scarcely to be observe in the true Ones; the Coat of Arms is very remarkable in the Plainness of the Supporters. — — — In the Word *THREE* in the Counterfeits, under the Sun, the two *E E'S*, are shorter than the Rest of the Word. — — — In the true Bills, on the right Hand Border, are two remarkable black Spots, near the upper and lower End, which are wanting in the Counterfeits: The Signers Names is wrote well, and rather better than the true Ones."

And again, about a month later, the *New-York Gazette; and the Weekly Mercury* of March 3, 1772, printed a notice from Philadelphia that counterfeit milled dollars of base metal were passing there. They were supposed to be cast and pretty well done, but were darker than the true ones and almost five pennyweights too light.

At the meeting of the Court of Quarter Sessions of the Peace of Dutchess County on May 22, 1772, the grand jury presented an indictment for passing counterfeit money against one John Finkell and it was ordered that a bench warrant issue. Finkell was duly apprehended but made his escape through the help of a certain George White, perhaps a constable. White was indicted on October 9, 1772, for having permitted the prisoner to flee.¹⁶

The various denominations of the February, 1771, emission of New York bills had been quickly counterfeited, and in March, 1772, a discovery was made which revealed the source of some, at least, of the

¹⁶ Ms. Mins. Dutchess Co. Sess. Liber E, May 22 and October 9, 1772.

false money. The *New-York Gazette; and the Weekly Mercury* of March 30, 1772, reported: "We hear that last Week counterfeit Bills of the last Emission of our Money, to the Amount of £739 were found in a Stack of Wheat on Dr. William Hooker Smith's Farm, at Pine's Bridge, near Croton's River, in this Province. The following is a List of the Bills found, viz. 112 of £5 each, not signed, £560; 28 of £5 signed, £140; 10 of £1, signed £10; 50 of 10s. not signed, £25; 8 of Do signed, £40 Total £739."¹⁷ The *New-York Gazette: or, the Weekly Post-Boy* of June 8, 1772, gave a report from Dutchess County that Dr. Smith was in the county jail for passing two false £5 bills of the last emission of New York. Further the *New-York Gazette; and the Weekly Mercury* of June 15 stated that the preceeding week a certain Felix Meigs of Connecticut was committed to jail in New York City for passing several false £3 bills of the last emission of New York currency. He had been examined, and it was strongly suspected that he was an accomplice of Dr. William Hooker Smith.¹⁸

Before the end of June there came a further development. The *New-York Gazette; and the Weekly Mercury* of June 29, 1772, published a dispatch dated Newport, June, 22, which read as follows:

Last Tuesday James Bud and Lemuel Gustine, Were apprehended and committed to goal in this town, on suspicion of being concerned in counterfeiting and passing New-York and Jersey paper money. About a week before, they, with some others, came from Nantucket in a sloop, and anchored in Mackerel Cove, a little within our light house, where these two left her and came to this town, and agreed, with an engraver to cut them a plate for the escutcheon or border of a New-York forty shilling bill, for which purpose they cut out the printed part of the bill, and gave the engraver the other part cut into three or four pieces. But before the engraver had quite finished the plate, he accidentally saw a New-York bill, which Bud had passed to another man, by which he discovered the real business he was about, and immediately informed Judge Hazard of

¹⁷ The same account is found in the *New-York Journal; or, the General Advertiser*, April 2, 1772, pp. 2-3.

¹⁸ See also the *New-York Journal; or, the General Advertiser*, June 18, 1772, p. 3 and the *New-York Gazette: or, the Weekly Post-Boy*, June 22, 1772, p. 2.

the same. After Bud and Gustine were examined, the sloop was brought into this harbour, and being searched, upwards of fifty pounds of York and Jersey money was found, including a small sum Bud and Gustine had about them. They confessed but little on the examination: But it might be easily perceived that one Wills of Connecticut, one Smith of New York, and a number of others were concerned in this affair.

The money above mentioned consists of sixty, twenty, ten and five shilling bills, principally of New-York currency, most of which are well known to be counterfeits; the Jersey bills are doubtful, and may probably be some of those taken out of the treasury when robbed.¹⁹ There is one five pound bill not signed: The forty shilling bill by which the plate was to have been made, is a true one.

By what could be drawn out of these men, there must be a very considerable amount of New-York bills counterfeited to the Westward; and Bud confessed that he saw a great number lying on Wills's table the first time he went to see him.²⁰

The two men, according to the *Providence Gazette* of June 27, 1772, had been in Providence some ten weeks before, had passed counterfeit bills there at that time, and then had gone eastward and purchased a vessel, supposedly with false money.

It is interesting to note that someone, probably an associate of Bud and Gustine, tried to secure types, perhaps to print in the letter on bills from the plate which Bud and Gustine were to have obtained. The *Massachusetts Gazette*; and the *Boston Weekly News-Letter* of July 2, 1772, stated: "Tuesday last a Person applied to the Printer hereof, for a Number of Types; and said they were for printing some Lines to go to the Bottom of a Family Coat of Arms, 5 of which had been done for as many Brothers by the Name of Sutton. There were about a Dozen Lines, ten Words in a Line, and did not seem applicable to any Arms; upon Enquiry, he said he came from the Borders of

¹⁹ For the story of the robbery of the office of the treasurer of the Eastern Division New Jersey, see the *New-York Journal*; or, the *General Advertiser*, July 28, 1768, p.

²⁰ See also the same account in the *New-York Gazette*; or the *Weekly Post-Boy*, June 2, 1772, pp. 2-3 and in the *New-York Journal*; or, the *General Advertiser*, July 2, 1772, pp. 1-2.

New-York Government, by which it was suspected he wanted the Types for some other Design, and was dismissed."²¹

The apprehension of Bud and Gustine came to the notice of the governor and council of New York. His excellency reported on June 25, 1772, to his board that he had received information that several persons had lately been arrested and committed to jail in Rhode-Island for passing counterfeit bills of New York and New Jersey. He had also heard that a number of persons were collected together at Pittsfield in Dutchess County and, the better to answer their wicked purpose of counterfeiting the bills of New York, formed themselves into a company called the Money Company, and, although it was generally known there, yet, from their number, the magistrates were deterred from taking the proper steps to punish them. The council thereupon advised the governor to write to the justices of the peace in Dutchess County, exhorting them to a vigorous and active execution of their authority and to use every method in their power to break up so dangerous a combination by apprehending and bringing the offenders to justice.²²

On July 1, 1772, the matter came up again in council, for Chief Justice Horsmanden delivered to the governor a letter which he had received from Metcalf Bowler, a justice of assize in Rhode Island, dated June 20 and inclosing the examination of James Bud. When this had been read, it was recommended that the chief justice take the proper measures to have Bud and Gustine brought to New York for trial and it was ordered that the expenses of bringing them be defrayed by the province.²³

Bud was tried in October at the Superior Court held in Newport for passing counterfeit money. He pleaded guilty to the charge and was fined £100 and costs.²⁴ Gustine, however, in August had escaped from jail with the aid of one Andrew Aldrich, who in September, 1773,

²¹ The same item was printed in the *New-York Journal; or, the General Advertiser*, July 16, 1772, p. 5.

²² Ms. Mins. Council 26, p. 304.

²³ *Ibid.*, 26, p. 307.

²⁴ *New-York Gazette: or, the Weekly Post-Boy*, Oct. 12, 1772, p. 3.

was indicted for having broken the jail in Providence and liberated Lemuel Gustine and also for having counterfeited dollars.²⁵ Constable Abraham Van Gelder and Benjamin Quereau of New York City went to Rhode Island to bring Bud and Gustine to New York, and their bill of £25/4/8 was paid by the treasurer of the province.²⁶ At best however, they can have brought back only Bud, and nothing further is known of him.

There is, however, much more evidence concerning another supposed confederate of William Hooker Smith, namely Felix Meigs, boatman. On July 30 four indictments were filed against him and on July 5 a fifth one. They were as follows: for passing on June 10, 1772, at Montgomery Ward, a false £3 New York bill to Arabela, the wife of John Rutter; for passing on June 5, 1772, at the Out Ward of New York City, a counterfeit £3 New York bill to Jacob Shour for passing on June 10, 1772, in Montgomery Ward, a false £3 bill of New York to Philip Rhineland; for passing on the same day and in the same ward another spurious £3 bill to Vincent Montanije; and finally for passing on June 5, 1772, in the Dock Ward of the City, a false £3 bill to Catherine Dumont, to all of which he pleaded not guilty.²⁷

For some unknown reason Meigs was not tried on the last indictment but instead on another for passing a £3 bill to John Lockhart. A certain John Outhout, brother of Catherine Dumont, made a deposition which shed some light on Meigs' actions before he was taken into custody. The text of this document read:

Evidence of Mr. John Outhout says that on the 9th Day of June, 1772, Sister Catharine Dumont gave him a New York Bill of Three Pounds and two Bills of 5/ which this Deponent immediately declared to be counterfeited, that he went in Pursuit of the Person who had passed the said Bills but could not find him until the next Day, he heard that a Person had

²⁵ *New-York Journal; or, the General Advertiser*, Sept. 23, 1773, p. 3 and the *Providence Gazette*, Sept. 11, 1773, p. 3.

²⁶ Ms. Mins. Council 26, p. 332.

²⁷ Ms. Mins. SCJ 1772-1776, pp. 26, 28-30; H.R. Pleadings K 392, 464, 508, 507, 511.

been detected in paying false money at the East End of Town. — That this Deponent then went to Alderman Blags where he was informed that the Alderman and a Man who had passed the false money were gone down to the white Hall, in Quest of a Person of whom it was pretended the false money had been rec^d for a Moses Built Boat, but no such Person could be found, that this Deponent met Alderman Blag on the white Hall Dock, and informed him that he was in Quest of a Man who has pass'd a false Three Pound Bill & two five Shillings Bills at this Deponents House for a Piece of Callico Alderman Blag then told the Deponent he would bring the man to the Deponents House which he did the tenth Day of June, the Man at first denyed having bought any thing at that Shop, but on being reminded by this Deponent of some Circumstances which happened confessed that he had purchased a Piece of Callico there, for which he had given the said Three Pound & five shilling Bills shown him by this Deponent being the identical Bills now in this Deponents Possession — that this Deponent then went with the Man to his Boat, where he opened his Chest and delivered to him the said Piece of Callico That this Deponent does not recollect the Person's Name who passed the said false Three Pound & five Shillings Bills, but heard he was committed to Prison, where he still is, and this Deponent would know him on seeing him again.

To the close of the above is added the evidence of John Lockhart, who said that about the end of May a man came to his shop, asked for some linen, and requested that he cut off five yards of this. The man made payment with a New York £3 bill which proved to be false.²⁸

Meigs was tried before the Supreme Court on July 30 and found guilty on four of the five indictments. Sentence was passed on August 1 that he be executed on September 11.²⁹ The witnesses for the King were Jacob Shourt, Peter Ryker, Susannah Shourt, Jane Ryker, John Lockhart, Vincent Montaine, John Rutter, Arabella Rutter, Philip Rhinelander, George Hopson, Alderman George Brewerton and Alderman Blagge, Whitehead Hicks, Catharine M^cAvy, De

²⁸ H.R. Pleadings K 459.

²⁹ Ms. Mins. SCJ 1772-1776, pp. 32, 35, 37; the *New-York Gazette; and the Weekly Mercury*, Aug. 3, 1772, p. 3; the *New-York Gazette: or, the Weekly Post-Boy*, Aug. 3, 1772, p. 3.

Pyster, Abraham De Peyster, Abraham Lott, and William Rhineland. The witnesses for the prisoner were Jediah Meigs, Artl McNiel, Jerediah Greswoud and William Samuel Johnson.³⁰

Fortunately for Meigs, who, according to the *Connecticut Cour* of August 11, 1772, belonged to East Guilford and had a wife and several children there, the governor and lieutenant governor of Connecticut requested the governor of New York to pardon or reprimand him. Governor Tryon, on the advice of his council, reprieved Meigs for nine months until the King's pleasure could be known.³¹ The Earl of Dartmouth on December 8, 1772, replied that Tryon should act according to his own judgment.³² On April 12, 1773, Tryon placed before his council two letters of March 18 from the governor and lieutenant governor of Connecticut and also the copy of a letter dated October 9, 1772, from the Governor of Connecticut to the Earl of Hillsborough, in which Governor Trumbull recommended Felix Meigs as an object of the royal clemency. The council then advised Governor Tryon to pardon Meigs,³³ and on April 19, 1773, the pardon was actually issued.³⁴

³⁰ Ms. Mins. SCJ 1772-1776, p. 31.

³¹ Ms. Mins. Council 26, pp. 316-317 and the *New-York Journal; or, the General Advertiser*, Sept. 17, 1772, p. 3.

³² O'Callaghan, *Doc. Rel. Hist. NY VIII*, p. 38; NY Col. Mss. 100, p. 48; Ms. Mins. Council 26, pp. 336-337.

³³ Ms. Mins. Council 26, p. 351.

³⁴ Book of Commissions 1770-1789, Pardons, Felix Meigs, p. 76.

XIII

THE ALBANY COUNTY GANG

During the summer of 1772 warnings from Philadelphia were printed in the New York newspapers cautioning against false thirty shilling bills of New Jersey dated April 16, 1764,¹ and a counterfeit Pennsylvania bill of twenty shillings.² But the *New-York Gazette*; and the *Weekly Mercury* of October 5, 1772, revealed that a New York bill [PLATE XI] had been counterfeited also. The account was headed "COUNTERFEITS" and read:

The Publick are hereby notified, That within these few Days, Counterfeit *Three Pound* Bills have made their Appearance amongst us, so well executed that it requires the greatest Care to discover them from the true Bills, and are supposed to be done by a Copper plate, constructed on a new Method, that is, by *raising*, instead of, *sinking* the Letter, which makes the Bills appear as if done with a printing Type. The Bills are dated, New-York, February 16, 1771. The *false* Bills may be discovered from the *true*, by the following Observations: The Mark III L at the Bottom of the Print of the *true* Bills, near the Arms stand regular, in the *false* they are irregular, the first I standing higher than the other two, and the L is sunk much below the Line of the other two II's. The upper part of the Letter K, in the Word NEW-YORK, in the *false* Bills, is blotted, and the Comma at the End of the K is split; in the *true*, the K and Comma stand fair; — in general the Counterfeits may be discovered by the Face of the Bill, the Paper being smooth as if worked in a rolling Press, and the Arms and Escutcheons are better executed than in the true Ones. These remarks must suffice for the present.

There was good reason for the provincial authorities to be concerned both for their paper currency and for the foreign coin which

¹ *New-York Gazette*; and the *Weekly Mercury*, July 6, 1772, p. 2; *New-York Journal*; or, the *General Advertiser*, July 9, 1772, p. 2; *New-York Gazette*; or, the *Weekly Post-Boy*, July 6, 1772, p. 2.

² *New-York Journal*; or, the *General Advertiser*, Aug. 6, 1772, p. 5.

circulated. On October 21, 1772, Governor Tryon communicated to his council a letter, dated October 3, which he had received from Sir William Johnson, advising that sundry persons from New England had lately in their traffic with the Indians passed many counterfeit Spanish dollars, three of which had been delivered to him. William sent these counterfeits to the governor and expressed fear that if some means were not quickly devised to prevent this disposition on the Indians, they might retaliate by carrying off the horses and cattle of the whites. It was advised by the council that Sir William recommend to the Indians that they exert themselves apprehending all such offenders, that they might be brought to justice.³

Early in November great numbers of counterfeiters were uncovered in Albany County. The *New-York Gazette; and the Wee Mercury* of November 9, 1772, reported: "We hear, that a few Days ago no less than 9 Men were committed to Goal in Albany, on suspicion of being concerned in counterfeiting our last Emission Paper Money, as a Quantity of the same, and many bad Dollars, with Instruments for operating on both, were found in their Possession. Even more would, doubtless, have been imprisoned, had it not been for the large numbers concerned and the support they receive even, in one case, at least, from constables.

The seriousness of the situation is revealed by a letter sent to Governor Tryon on November 24, 1772, by John Munro of Fowling, a justice of the peace of Albany County. He wrote:

It is with the greatest reluctance that I would offer to trouble your Excellency with any more complaints but when the Public Interest and the welfare of this Government is so much concerned, I think it my indispensable duty to report the same to your Excellency.

My chief business for these Ten days past was nothing but taking Examinations of Felons and their associates of which this country abounds.

I have now in my Custody the Stamps Moulds Mills and several other Materials for coining of Dollars (dated 1760) one crown piece dated 1765

³ Ms. Mins. Council 26, p. 324.

one dollar dated 1766, and one dated 1768 which are all counterfeits & found in the custody of John Searles of Arlington and Comfort Carpenter of Shafsbury which with their own confession upon Oath, was sufficient Evidence to me and after discovering from them all that I could upon Oath I wrote their Mittimus and sent them off to Goal in the charge of two constables and desired as many to their assistance as they thought necessary — the same night they suffered Carpenter to make his Escape, then one of the said Constables pursued after Carpenter and the other went to Goal with Searles, but stoped upon the Road ten days and at last let Searles go about his Business.

What can a Justice do when the whole Country combinds against him — The very night that I sent these two to Goal some of their associates Brock and Destroyed one of my Potash works, which cost me upward of fifty Pound my property is destroyed night and day & durst not say Ill done — by the confession of these Felons (there is a line of money makers from New Jersey to a place called the Cowas back of New Hampshire) I have got the names of 17 more. I have sent after them, but I know that the Constables will not be faithfull for they are its my opinion less or more concerned — Mr Justice Morison has declined Serving and I hope your Excellency will be pleased to Excuse my acting any longer for I got myself ruined by the conduct of My Good Neighbour. . . .⁴

Governor Tryon communicated the contents of Justice Munro's letter to his council on December 16 and the board ordered that its clerk write to the justice and desire him to transmit the utensils and examinations to the Court of Oyer and Terminer then sitting in Albany.⁵ It is possible that these utensils were the "certain Moulds and other Instruments for Counterfeiting Spanish Mill'd Pieces of Eight" which the governor produced in council on June 9, 1773, which were then defaced and ordered to be lodged in the secretary's office until wanted for the trial of any criminals charged with making or passing such false coin.⁶

At about the same time that Justice Munro had made his examination of Carpenter and Searles, other justices of Albany County had

⁴ O'Callaghan, *Doc. Hist. NY* IV, pp. 800–801.

⁵ Ms. Mins. Council 26, pp. 330–331.

⁶ *Ibid.*, 26, p. 359.

also been at work. In the *New-York Gazette; and the Weekly Mercury* of November 30, 1772, was published the following extract of a letter from that county:

The Justices of King's District, Matthew Adgate, William B. Whiting, James Savage, and Nathaniel Culver, Esquires, have distinguished themselves by an exemplary Vigilance, in the Discovery and Commitment of no less than twelve Persons, for the dangerous Offence of counterfeiting our Paper Currency, and passing counterfeited bills. — — — Upon a close Examination of the first Person, apprehended for the Offence, the Justice found out that several of the Offenders were in different Places, who appeared to have been confederated together for carrying on this pernicious Practice: — — — And having issued several Warrants, and dispatched a Number of Officers at once, they so concerted Measures, that most of the Delinquents were apprehended nearly about the same Time, and before the Alarm of the Fate of their Associates could reach any of them. The most noted of these Offenders is one Joseph Bill, who was at White Plains, with the Colonel Elijah Williams, a Gentleman of Character, in Boston Government, accompanied by an Officer, who had a Warrant from the above-mentioned Justices, went in Pursuit of him, and by an uncommon Dispatch, apprehended the Offender, before he had the least Intimation of his being discovered. There were found in the Possession of the different Offenders several Plates for striking three Pounds and five Shillings, New-York Bills, and Jersey Bills of different Denominations, also two Presses and a Quantity of Types; a Stamp for Dollars, and other Implements, with a Quantity of Bills, some finished and some unfinished. The Conduct, not only of the Magistrates in King's District, but of the Constables and inferior Officers also, is highly commendable, and the Public is indebted to them, as well as to Colonel Williams, for detecting, apprehending, and bringing to condign Punishment, a Number of Persons, united in one of the most pernicious Confederacies that have been known in the Province for a long Time.⁷

The names of the money makers taken in Albany County were printed in the *Massachusetts Gazette; and the Boston Weekly News*

⁷ The same extract was printed in the *New-York Gazette: or, the Weekly Post-Boy* Nov. 30, 1772, p. 3. See also *The Massachusetts Gazette; and the Boston Weekly News Letter*, Dec. 4, 1772, p. 3.

Letter of December 10, 1772, as Joseph Bill, John Williamson, John Wall Lovely, William Hurlbut, Festus Drake, Silas Robison, Gill Belcher, Wane Case, John Johnson, John Stannard, Simon Claviland, and Humphrey Dening. The *New-York Gazette: or, the Weekly Post-Boy* of December 14, 1772, gave the following list which differs slightly from the above: John Smith, John Williamson, John Wall Lovely, John Standly, John Johnson, Joseph Bills Parker, Wane Base, Simon Cleveland, Hambleton Deaney, Gill Belcher, William Holbert, Phester Drake, Silas Robison.

The prisoners were dangerous and no doubt even more turbulent because smallpox broke out in the county jail. Simon Cleveland died of this disease and, according to the *New-York Gazette: or, the Weekly Post-Boy* of December 14, 1772, "four more of them caught the Contagion, and the Remainder were under Apprehensions of getting the distemper." On the night of Wednesday, December 9, the counterfeiters almost effected an escape by breaking out of the prison near the chimney but they were heard by the guard which had been kept over the jail since their confinement. After their attempted break was frustrated, they were thereafter kept more closely confined.⁸

A special court of Oyer and Terminer was opened in Albany on December 11,⁹ and eighteen persons were indicted for counterfeiting or knowingly passing false bills of credit or Spanish dollars.¹⁰ The Court had before it a letter, dated December 13, 1772, from Justices Whiting and Adgate, certifying that two of the prisoners, John Wall Lovely and William Hulbert, had given important information which led to the arrest of Joseph Bill and other counterfeiters.¹¹ This letter, partially destroyed, shows that Lovely was arrested in the latter part of October, 1772, for having passed counterfeit bills of New York. The justices promised him to intercede with the Court of Oyer and

⁸ *New-York Gazette; and the Weekly Mercury*, Dec. 21, 1772, p. 3; *New-York Journal; or, the General Advertiser*, Dec. 24, 1772, p. 2; *The Massachusetts Gazette; and the Boston Weekly News-Letter*, Dec. 31, 1772, p. 3.

⁹ *New-York Gazette; and the Weekly Mercury*, Dec. 21, 1772, p. 3.

¹⁰ Ms. Mins. Council 26, pp. 333-334.

¹¹ O'Callaghan, *Eng. Mss.*, p. 812, Dec. 13, 1772.

Terminer before which he must be tried in case he should give true information about the company of money makers. Thereupon Lo freely gave the names of persons whom he knew and directed to find where a money press had been used a short time before Sheffield. His information proved to be correct and enabled magistrates to apprehend many of the gang and to find numerous instruments. After the arrests had been made, the justices secured information from one Daniel Lewis and Joshua Adams that Joseph Bill was in the lower part of the Oblong and the authorities were to seize him.¹²

The confession of William Hulbert, made on December 21, 1770, implicated Dr. Smith, Th. Smith, Dr. Bill, James Sutton, J. Williams and Abner Burrows, of Connecticut, Lewis Lett, Phi Granger, Colonel Hogaboom and Stephen Hogaboom in the business of counterfeiting.¹³ The document is badly charred and only legible in part. It states that Hulbert knew of no makers of dollar stamps save Bill and one J. Williams of Goshen, Connecticut, with whom a certain Abner Burrows was connected. Th. Lett and Phi Granger had 300 or 400 counterfeits. One Younglove stated that he had received counterfeit money from Colonel Hogaboom. A person who had died in jail, probably Simon Cleveland, had told Hulbert that Stephen Hogaboom had promised to find him what dollar stamp could be mixed with copper in order to make dollars. Hulbert also understood that directions for making counterfeit bills were furnished to Dr. Smith and his associates by Colonel Hogaboom, who like the others was supposed to have given directions for numbering bills to persons concerned in making counterfeit money in Sheffield. A certain Al Smith was also implicated in the business.¹⁴

¹² NY Col. Mss. 99, p. 36.

¹³ O'Callaghan, *Eng. Mss.*, p. 812.

¹⁴ NY Col. Mss. 99, p. 39. Samuel Casey, of Little Rest, Rhode Island, in his deposition before the magistrates in Newport on July 14, 1770 (see the paper in the October term, 1770, of the Kings County Superior Court, now deposited in the Superior Court in Providence), stated that he had heard that Burrows (or Burroughs) and Phineas Granger were in the counterfeiting business. In 1767 Gra

At the Court of Oyer and Terminer which opened on December 11 five persons were convicted, John Smith, William Hulbert, Joseph Bills Parker, Gilbert Belcher and John Wall Lovely, only one of whom, Smith, was sentenced to be executed on February 6, 1773.¹⁵ The proceedings were complicated by the fact that a jurisdictional question was involved, since some of the prisoners had been apprehended in a section of Berkshire County, Massachusetts, which was also claimed by New York. Reaction in Massachusetts was represented by the following account which appeared in the *Supplement to the Massachusetts Gazette* of January 21, 1773:

We hear from the County of Berkshire, That about five weeks since one of his Majesty's Justices of the Peace for the County of Albany, issued his Warrant against several persons of the Towns of Sheffield and Stockbridge upon a suspicion that they had been concerned in counterfeiting the Bills of Credit of the province of New York. The Complainants accompanied with Mr. Williams, Sheriff of the County of Berkshire, applied to the Hon. Timothy Woodbridge, Esq; of Stockbridge, for a Warrant to apprehend said Persons, and transmit them to the authority of Albany County, to be examined touching the supposed Offence. Mr. Woodbridge utterly refused to grant a Warrant of such an extraordinary tenor; but consented to grant a Warrant to apprehend and convene said Persons before him or some other Magistrate of the County of Berkshire, to be examined touching that Matter: but the Sheriff and others with him

who lived in Suffield, Connecticut, was committed to jail in Hartford on suspicion of having been concerned in counterfeiting dollars. He broke out on the night of September 29, and the sheriff offered a reward of twenty shillings for his capture (*The Connecticut Courant*, Oct. 5, 1767, p. 3). He was arrested in 1772 and in March of that year was convicted at the Superior Court in Hartford of making instruments for counterfeiting coin and using them for that purpose. He was sentenced to have his right ear cropped, to be branded on his forehead with the letter C, to be whipped twenty lashes, and to be imprisoned for six months (*The Connecticut Courant*, March 17, 1772, p. 3). He was given twenty-eight lashes at the public whipping post in Hartford on November 11, 1772; he then broke jail but was soon taken again and recommitted on suspicion of setting fire to a house (*The Newport Mercury*, Nov. 30, 1772, p. 3).

¹⁵ *Massachusetts Gazette Extraordinary*, Feb. 4, 1773, p. 2, which cites a dispatch from Albany, dated January 4.

declined Mr. Woodbridge's Offer, expressly declaring that such Proceedure would not answer what they proposed to effect. And thereupon immediately and very abruptly left Mr. Woodbridge and proceeded thro' the Town of Great-Barrington (wherein resided three Justices for Berkshire County, two of whom, viz. David Ingersoll, jun. and Mark Hopkins, Esqrs. were learned in the Law) to the Town of Sheffield, to Joshua Ashley, Esq; who granted a Warrant according to their Wishes; by Virtue of which the said Sheriff apprehended those Persons and hastily dragged them out of Berkshire County into the County of Albany, where they were very rigorously and partially treated, and directly hurried away to Albany Goal, then greatly infected with the Small Pox. Some of them have since been seized with that contagious Distemper and died, and there has been a special Court appointed to try those who survive. The Court has met and tried four of them, who are all convicted, and one is now under Sentence of Death. The Court is adjourned till next June, and Justice Livingston gave in Charge to the Grand Jury to enquire into all Offences that should be committed any where West of the West Banks of Connecticut River, which they accordingly did, and in the Indictments expressly alledged that the Crime was committed in the said Sheffield, &c. in the County of Albany, &c.

On what foundation they ground so extravagant a Claim we would gladly be informed.

Justice Woodbridge has forwarded a Letter to his Excellency Governor Hutchinson, relative to this extraordinary Proceeding, which was immediately laid before the Great and General Court now sitting here, and a Committee of both Houses appointed to take it into Consideration.

Governor Tryon of New York, who in a speech to his council and the General Assembly on January 6, 1773, had called their attention to "the Mischief arising from the Circulation of a large Quantity of Counterfeit Currency lately brought into this Country,"¹⁶ laid before his council on January 27 a letter, dated January 25, from Justice Livingston, who had presided over the Court of Oyer and Terminer. The letter stated:

¹⁶ *New-York Gazette; and the Weekly Mercury*, Jan. 11, 1773, p. 3.

At the last Court of Oyer and Terminer and Goal Delivery held at Albany, there were five persons convicted, to wit, William Hulbert, Joseph Bill, John Wall Lovely, Gilbert Beletier and John Smith. On the last only of whom he had passed Sentence of Death. That one Reason for deferring Judgment on the rest was that their Crimes of Counterfeiting or passing Counterfeit Money, were committed in Sheffield, where for many years last past the Government of Massachusetts-Bay has exercised an uncontroll'd Jurisdiction. But that a late act having included the place within the County of Albany, he was under the Necessity of trying them there, and that unless his Excellency shall think it proper to interpose a pardon, the same Act will oblige him to proceed to Judgment. And that if Mercy should be extended to any one of them only, he would recommend William Hulbert, who tho evidently guilty had made an ample Confession, and has been instrumental in discovering the principal Offender one Bill, as appears by a Certificate of the Justices Adgate and Whiting and his own Confession.¹⁷

The governor's council also had before it the following petitions for pardon: two, one of December 28, 1772, and one of January 9, 1773, from William Hulbert (or Hulbard), one from his father, Obediah, of Enfield, Connecticut, begging mercy for his son, one from the inhabitants of Enfield and Suffield in favor of young Hulbert, two, one dated January 5 and the other January 12, 1773, from John Smith, one from Joseph Bill, dated January 12, one from John Wall Lovely, and one from Gilbert Belcher.¹⁸ When the letter from Justice Livingston, the certificate of Justices Adgate and Whiting, and the petitions had been read, the council advised the governor to pardon only William Hulbert because his early confession appeared to have been a consequence of the justices' promise to recommend mercy. The council observed that, although the same justices had likewise recommended John Wall Lovely, he had already been punished in one of the eastern colonies for the like offence, and they were therefore of the opinion that the law should be allowed to take its course.¹⁹ At an

¹⁷ Ms. Mins. Council 26, pp. 334-335.

¹⁸ O'Callaghan, *Eng. Mss.*, pp. 812-813.

¹⁹ Ms. Mins. Council 26, 334-335.

earlier meeting, on January 6, they had recommended against a pardon for Smith.²⁰

Two of the petitions which the council rejected are preserved in a fragmentary condition: Gilbert Belcher in a document written in the Albany jail on January 5 protested he had never had any counterfeit money in his possession and prayed the governor to "take pity on a helpless mortal who has but a poor helpless famely of a wife and nine children the oldest not but twelve years old;" all had but the petitioner's labor on which to exist, and he was, further, his aged mother's only child.²¹ John Wall Lovely, in his petition of January 12, admitted that he had passed two £3 bills, but, as he could neither read or write a word, he had no idea that they were counterfeit. In fact, he claimed that he had sold a good horse for them and further that the people to whom he passed the bills at first took them but some time after on close inspection found that they were bad. He asserted also that the person who returned them to him was repaid with good money but did not give back the false bills and also prosecuted him. The petition closed with the plaint that he had been born in England and thus had neither friend nor relative to whom he might apply.²²

Hulbert alone, then, had his petition granted and a pardon was issued on January 28, 1773, for his crime in counterfeiting New York bills and counterfeiting and passing Spanish pieces of eight.²³ The

²⁰ *Ibid.*, 26, 333-334. At the meeting of January 6 "Sundry Copper plates found at the places of abode of some of the Criminals were then produced, which his Excellency informed the Board, were delivered to him by Richard Morris Esquire Clerk of the Assizes, who had also in his Custody a large Quantity of Counterfeit Money to the Amount of £1000 . . . and was desirous of receiving the Directions of Government concerning the same: Whereupon M^r Morris was required to attend, and attending accordingly, produced the said Counterfeit Money, and the Plates having by Order of his Excellency [been] defaced in the presence of the Members of this Board, were with the Money redelivered to M^r Morris who was desired after Writing with his own Hand the Word *Counterfeit* on the Face of each of the Bills, to inclose the whole together in a Box to be sealed up and kept by him until wanted as Evidence against any of the Criminals or until further Order."

²¹ NY Col. Mss. 99, p. 50.

²² *Ibid.* 99, p. 57.

²³ Book of Commissions 1770-1789, pp. 73-74.

governor's council, however, ordered a new Commission of Oyer and Terminer and General Goal Delivery to issue for the County of Albany and to be in force for the space of six months and advised Governor Tryon to recommend to the judges that they oblige William Hulbert before receiving his pardon to enter into recognizance with proper security to appear at any time when required to give evidence against any of the criminals then in jail or who should be indicted for the like offence.²⁴

During the month of February and before the Commission of Oyer and Terminer met there was much feeling in Massachusetts over the arrest of certain counterfeiters in what was claimed by that province as its territory. On February 10, according to the minutes of the governor's council,²⁵

His Excellency communicated two Letters one from the Sherif of Albany dated the 6th Instant, the other from Mr Justice Adgate of the County of Albany, dated the 2^d Instant, which was read, by which it appears that a Warrant issued by the Court of Oyer and Terminer lately held at Albany, against Ichabod Miller, charged with Counterfeiting or knowingly passing Counterfeit Bills of Credit of this Colony, who was apprehended a little to the Eastward of the supposed Temporary Jurisdiction Line; That two of the under Sherif's Assistants had been since taken on a Warrant issued by Mr Justice Woodbridge of the Massachusetts Bay province, charging them as Rioters, and obliged to give Bail for their appearance at a Court of Sessions to be held for the County of Berkshire, in that Government. And that they were under apprehensions of being treated with great Rigour, as the Prosecution is carried on by Mr Woodbridge with Resentment, from an Opinion that the Jurisdiction of his County, was infringed by the Officer who apprehended Miller.

The Council humbly advised his Excellency to inform Governor Hutchinson of the Circumstances of this Affair, to assure him that had the Case been reversed, he should chearfully have granted a Noli prosequi to prevent so unreasonable a proceedure, and to intimate that he has no doubt this Measure will be adopted by him, as it seems absolutely necessary even if the Limits between the two provinces had never been drawn into Dispute.

²⁴ Ms. Mins. Council 26, pp. 334-335.

²⁵ *Ibid.* 26, p. 337.

The minutes of the council for February 15 continued the story as follows:

His Excellency communicated the Draft of a Letter to Governor Hutchinson²⁶ relative to the persons who are now under prosecution in the province of the Massachusetts Bay, for assisting the under Sheriff of the County of Albany in apprehending Ichabod Miller, charged with Felony, and who was taken a small Distance to the Eastward of the supposed Temporary Line of Jurisdiction — informing Governor Hutchinson of the Facts as represented by the Officer of this Government, and intimating the propriety of his putting an immediate Stop to that Prosecution, and That if this Measure should appear inexpedient, the parties under Prosecution can have no other Remedy than to plead to the Jurisdiction of the Courts of that Province, and in Case their Plea is rejected, to carry the Cause by Appeal to his Majesty, in which they cannot Fail of being powerfully supported by this Government. And the Draft of the Letter being Read and amended was approved of by the Board.²⁷

Justice Woodbridge of Stockbridge in his "resentment" made certain charges to Governor Hutchinson against Colonel Williams, Sheriff of Berkshire, and Justice Ashley, relative to their conduct against counterfeitters, and all this was reported to Governor Tryon in a letter, dated Kinderhook, February 10, written by H. van Schaak.²⁸ On February 17 this letter from van Schaak was read to the governor's council informing that Williams and Ashley, "who were Instrumental in apprehending several of the persons charged with counterfeiting the Bills of Credit of this Colony, and had assisted in breaking up the Dangerous Confederacy formed to carry on this atrocious Crime, were summoned to attend both Branches of the Legislature of that Province, to answer for their conduct." Thereupon the council advised Governor Tryon to signify to Governor Hutchinson the "grateful Acknowledgements" of New York "for the laudable

²⁶ O'Callaghan, *Eng. Mss.*, p. 814. The letter dealt with the arrest of Israel Spencer, Joshua Rood and Joshua Whitney, assistants of Deputy Sheriff Daniel David of Albany County in arresting Ichabod Miller.

²⁷ Ms. Mins. Council 26, p. 338.

²⁸ O'Callaghan, *Eng. Mss.*, p. 814.

Zeal manifested by those Gentlemen on this Public Occasion, and to recommend them in the warmest manner to his Countenance and Protection."²⁹

Feeling in Massachusetts, however, had been aroused over the affair, and on February 20 the council and General Assembly of Massachusetts passed a resolution protesting the arrest and detention in jail in Albany of Gilbert Belcher and others, inhabitants of Berkshire County, for crimes alleged to have been committed west of the line.³⁰ Governor Hutchinson on February 20 wrote to Tryon enclosing the resolution passed by the council and House of Representatives of Massachusetts. It was requested that the sentence of Gilbert Belcher and the other inhabitants of Massachusetts be not carried out unless it were proved that they had committed crimes to the westward of the line allegedly submitted to by both provinces for several years.

After consideration of the situation the council on March 1 advised Governor Tryon that the law should take its course and that a committee of the board should formulate reasons for this opinion that they might be communicated to Governor Hutchinson. This committee, headed by William Smith, on March 3 made a lengthy and highly informative report. It pointed out that four of the convicted counterfeiters had committed their crimes beyond twenty miles to the eastward of the Hudson River and that one of them, William Hulbert, had been pardoned, leaving Joseph Bill, John Wall Lovely and Gilbert Belcher subject to capital punishment. The committee further noted that for many years the province of New York had treated the counterfeiting or altering of its currency -- no matter where the crime was committed -- as felony without benefit of clergy. The committee conceived this practice "is founded upon the aggravated Nature of the Offence, and the great and invincible Law of Necessity, for if the mere Circumstance of Counterfeiting the Coin of any Country, beyond the precise Line of its Territory, will render the agent dispunishable, the power of providing for the publick safety,

²⁹ Ms. Mins. Council 26, p. 339.

³⁰ O'Callaghan, *Eng. Mss.*, p. 815.

a power essential to every Legislative Body, cannot be enjoyed in its proper Extent, and this pernicious practice will receive such Countenance and Encouragement, as must be subversive of Commerce and Confidence, and all the Security of Civil Society."

No act, the report continued, passed for this purpose was disallowed by the Crown nor until now had given umbrage to any of the neighboring colonies, some of which had assisted in the surrender of offenders to the justice of New York. The committee expressed surprise at the intervention of Massachusetts for such criminals and also alarm, as the principle on which the Massachusetts government seemed to proceed appeared unfriendly to all the colonies, especially at a time when complaints of the corrupting of the currency of the provinces was general and the practice was prevalent in several parts of the continent. The intercession of Massachusetts, in the eyes of the committee, seemed to spring from a principle "that renders it impossible to every one of the Colonies to prevent the Corruption of its Coin, and leaves them only the power of punishing the Offence of passing it, an Offence rarely to be proved from the Difficulty of evincing the Scienter, an Offence less malignant than that of coining the Money, and which if this Solecism in polity, is to be submitted to, must nevertheless pass with Impunity, tho the Offender be apprehended within the Limits of the province that is injured."

Governor Hutchinson, the committee pointed out, claimed that the authority of New York extended only to a line twenty miles east of the Hudson River and that the offence of Belcher and the others, being committed in Berkshire County to the east of the said line, was by the law of Massachusetts no more than a trespass. In answer to this the committee asserted that, even if the jurisdiction of Massachusetts up to a line twenty miles east of the Hudson River had been uncontrovertable, it might be expected that an excess of eagerness on the part of constables in capturing the criminals

would scarce have exposed them to censure, since the Guilt of such Offenders ought to render them obnoxious as pirates are by the Law of Nations to be proceeded against in the Courts of all States to what Prince

soever they may be Subject — and tho' the Committee does not mean to assert that a Counterfeiter of public Coin of any Country is subject to the same universal Law, yet from the peculiar Malignity of the Crime and its extensive and pestilent Effects the Obligation upon Colonies (which tho' independent of each other are nevertheless connected by the indissoluble Ties of Interest and Subject to the same Sovereign) to act upon a principle of mutual Sympathy, seems to stand upon so solid and immovable a Foundation, as that which justifies independent Nations in proceeding against the Subjects of any other State for such Crimes as are incompatible with human Safety — Instead therefore of complaining of the Execution of our Laws against such enormous Offenders, we might rather have expected the Aid of the Massachusetts Bay for their punishment, and that by Laws of their own they would have conspired to prevent the Infraction of ours.

The committee observed that Massachusetts did not complain that any New York officers had crossed the aforesaid twenty mile line armed with the authority of New York against offenders. And, if they had, the territory from the Hudson to the Connecticut River was as much subject to the jurisdiction of New York as of Massachusetts. It added that the late act of New York including lands to the eastward of the twenty mile line was "to prevent any Conclusions from being drawn to the prejudice of our Claims in future."

The report continued:

It was therefore a mere Accident that these Criminals were tried in the County of Albany, tho' the Event has however shewn the Act to be of use in a much more important Article than the Legislature had in Contemplation when it was framed.

But for that Act, the District in Controversy would have been the only place where the Currency of this province might have been counterfeited, and the Counterfeiter unimpeachable, tho' apprehended in the Colony and clearly chargeable with the Fact: For as the Laws made to Guard against the Corruption of our Currency Stood before that Act was passed, the Counterfeiter in that Quarter could not have been prosecuted at all, it having escaped the Legislature to provide against the Commission of the Offence, at a place within the Province and yet not within any of its Counties.

And as there is good Reason to believe that a very great part if not all the false Money in Circulation, was made in this very district, the province would have been reduced to the disagreeable Necessity of passing an *ex post Facto* Law or of considering the Agents in this infamous Traffic as chargeable with no Crime, unless they could be convicted of passing the Bills knowing them to be counterfeited.

There was, the report held, no reason for any interposition in their favor even if their crimes had been committed in Boston or any other place beyond the territorial extent of New York. The report continued as follows:

The Offence of counterfeiting the publick Coin by the Laws of England and of many other States is punished as a Species of Treason, and it seems strange to the Committee that so heinous an Act should nevertheless by the Laws of the Massachusetts Bay be considered merely as a Trespass, for which the party injured is only to be recompensed in Damages, as tho it was a meer private Wrong committed without Force.

To the extreme Laxity of the New England Laws towards this Species of Offenders it may be owing that the Bills of Credit of this Colony are so generally and greatly disparaged. No less than thirty six Indictments were found against the Makers and passers of false Money at the late Court in Albany. New Offenders have been since apprehended and await their Trials in several other Parts of the province. False Bills to an Amount of more than twelve hundred Pounds have already been Stop'd by the Magistrates, and we hear of fresh Discoveries of Knots of Money Makers in divers Places, so that some exemplary punishment seems to be requisite not only in Justice to the public, but in Mercy to Individuals, who by the blameable Indulgence of Government, may be induced to participate in the Guilt of an Offence that threatens an almost universal prevalence in all parts of the Continent.

It appeared that the prisoners had no grounds to complain about the conduct of the court by which they were tried. The only point they made was that their offence was in Massachusetts a trespass but in New York a felony. The committee, however, observed that these criminals would have suffered death if their offence had been com-

mitted in any other colony and that the infliction of that penalty now would probably be a motive to hasten the settlement of the boundary dispute between the two provinces. Further, the committee added, the including of the disputed land in the County of Albany was no more blameable than its inclusion by Massachusetts in the County of Berkshire.³¹

The Honorable Robert Livingston arrived in Albany on March 1,³² and on the following day opened the Court of Oyer and Terminer. On March 6 he took William Hulbert's deposition concerning his association with Ethan Lewis of Sheffield and Gilbert Belcher in striking off counterfeit money.³³ Justice Livingston on March 9, 1773, sent from Claremont this letter in which he informed the governor of the proceedings of the court. He wrote:

I opened the Court of Oyer & Terminer the 2^d Instant, & on Friday passed Sentence of Death on Joseph Bill, Gilbert Belcher, and John Wall Lovely. — Their Execution is ordered on the 2^d of April. I have given his Majesty's Pardon to W^m. Hulbert, after which I took his Deposition and left him confined till he finds security for his Appearance at the next Court of Oyer & Terminer in Dutchess County. The two Witnesses Lewis, and Adams on whose Testimony Bill and Belcher were convicted did not appear tho' they were bound in very large Sums, w^{ch} obliged us to leave two Witnesses, on whose Testimony he could be convicted: He swore that he saw Belcher in a Wood striking 5/ Bills while others were striking £3 Bills, that he struck four or five w^{ch} were afterwards signed. Your Excellency will observe the difference between this, and the Testimony of Hulbert which Mr Morris will lay before you — The Prisoner was acquainted by Hulbert himself with what he could say, and insisted much on this, that Lewis' Testimony was false. You will also observe, that tho they differ in Circumstances, that Hulbert's Testimony is as much against him as Lewis's. How far this ought to operate in this poor wretches Favour, I must Leave your Excellency to consider. I write this in Haste as I send it, after M^r. Morris who is going down. I expected him here but have just received his

³¹ Ms. Mins. Council 26, pp. 339–347.

³² *The Massachusetts Gazette; and the Boston Weekly News-Letter*, April 1, 1773, p. 2.

³³ O'Callaghan, *Eng. Mss.*, p. 815.

Excuse for not calling. I beg Leave therefore to refer to him for a particular account of our Transactions.³⁴

The fate of Belcher, Packer and Lovely was sealed but before their execution they afforded the people of Albany no little excitement, as the following extract from a letter from Albany dated April 3, 1773, shows. It read:

John Wall, and two others were executed here yesterday, for being concerned in counterfeiting the Paper Currency of this province: — Wall was a hardened villain, and I believe a great rogue; after he hung on the gallows, I had the curiosity to take off his cap, and saw, as I before heard, that he was cropt. — Such work as he and his fellow prisoners made the day before they were executed was never known here before; they got off their bolts in the night, and made their escape out of goal, but were soon apprehended, and their irons renew'd. the next morning (when they were to have been executed) they had them off again, barr'd the room they were confined in, bid defiance to the Sheriff and his party and were determined to kill any person that should attempt to take them out; the militia of the whole city was obliged to be got under arms. Wall and his two fellows kept them off, and none dare go in, as they were to die at any rate. Wall sat fire to the goal, and expected to die so; but the inhabitants soon brought the engines and extinguished it. — His next contrivance was thus; he got about two pounds of powder from some malicious fellows, put it in a bottle, and a match to put to it when the Sheriff or any other person dare venture in: Thus they kept the city in an uproar for some time; at last a party suddenly broke in upon them, and according to his scheme, fix'd his match to the bottle, which he held in his hand, but thro' the mercy of providence, the powder did not take fire. — After which they were carried to the gallows, and executed according to their desert. Wall seem'd to die penitent, and sung psalms at the place of execution.³⁵

Belcher's dying speech, if sincere, indicated penitence. He stated that he was a New Englander of good family and a silversmith by trade, always "of an unsocial, refractory disposition." About seven

³⁴ Ms. Letter in the Gratz Collection in the Pennsylvania Historical Society, with whose kind permission the letter is here quoted.

³⁵ *Supplement to the Massachusetts Gazette*, April 22, 1773, p. 2 and the *New-York Gazette: or, the Weekly Post-Boy*, April 12, 1773, p. 3.

years earlier he had gone to reside in Great Barrington, where he met with people as perversely inclined as himself. He soon became associated with them and concerted schemes which had no tendency to promote the interests of their neighbors. "No gain," he said, "afforded me so much pleasure as that which I acquired by illicit means. Coining and counterfeiting engrossed my attention, and those who first advised me to transgress, persuaded me to continue my iniquitous practices." He added bitterly that those more guilty than he had escaped the danger through the mediation of friends or the powerful efficacy of a sum of money, properly applied.³⁶

Joseph Bill Packer, of whose life and travels a cursory narrative had been already published, in his speech and confession touched thus upon his counterfeiting operations:

I never considered that it was criminal for a mechanic to finish any piece of work that he is employed to execute, whatever mischievous purposes the instrument he makes is applied to, after the artist delivers it out of his hands: For example a gun-smith makes a musket, an assassin purchases it, and with it shoots twenty men, whose lives were very valuable to society, is the innocent mechanic to be made answerable for the damage done by the villain?

My case is exactly similar; I engraved plates in North-Carolina, Virginia, Pennsylvania, and the Jersies, for people who made a practice of counterfeiting the currency of those provinces; but I never passed any bills of credit fabricated by them.

In the months of March and February last I was applied to, by William Hulbert and Daniel Lewis, to engrave two copper plates, the one to resemble a three pounds, and the other a five shillings bill, dated February 16, 1771, of the late emission of New-York bills of credit; I compleated the work, and received a reward of eighteen pounds when I delivered the plate to Hulbert and Lewis.

Afterwards I saw Hulbert strike, or impress, about forty bills on the same copper-plates that I had engraved.

Daniel Lewis signed the bills, and his sister (Miss Polly, an active, accomplished young lady) distributed the ink upon the plates when the

³⁶ *Supplement to the Massachusetts Gazette*, April 29, 1773, p. 2.

impression was struck. James Budd was in the room when the work was performed, and Deacon Kelleck came to Lewis's house with a watch, in order to exchange it for bills of their manufacture. And, in my opinion, the father of Daniel Lewis was not ignorant of the illegal transactions of his son and associates.³⁷

John Wall Lovely, in his dying speech, told of his youth in Hampshire, England, his residence on the Isle of Wight, his travels to Newfoundland and Portugal, and his coming to Boston. After also relating his marriage, which ended in a divorce, he closed his discourse with this story of the counterfeiters:

In the year 1772, I sold a watch for between seven and eight Pounds; the man who bought her gave me an order for the money upon *John Smith*, after receiving the money I passed a thirty shilling bill at Reading; it was found to be counterfeited, and I was committed to Fairfield goal. I was urged to discover my associates, but I had none; nor had I any acquaintance of Smith before that time. — An intimate acquaintance has since taken advantage of my ignorance and occasioned my overthrow. I sold a horse to him for six pounds, he paid me in New York money which he said was good. Soon after I met with one *Asa Holmes*, at Pittsfield. I bought a watch from him and gave him two Bills that I received for the horse. The next week he followed me to Sheffield, but not finding me there, he came to Great-Barrington, where he apprehended me at the house of one *Haycock*, I settled with him upon his own exorbitant terms, gave him back his watch, and also to make him quiet, I gave him a horse that was estimated at fifty dollars besides a saddle and bridle. When he got from me what he could, him and his vile gang brought me over to New York government. I was examined before 'Squires *Whiting* and *Adgate*. I told them, that I had the bills of *Lewis Benedict Bennet*, and that I could prove it by evidences that were present when I received them; the justices said that I was connected with the Money-makers, and that if I would discover them I should be admitted an evidence and not sent to goal; I told them, that by misfortune I had passed a bad thirty shillings Bill before and was punished for it at Fairfield: 'Squire *Whiting* said that was nothing, desired me to tell all I knew, & if I was not cleared he should be hanged.

³⁷ *Ibid.*, May 6, 1773.

I then told them that the day before I was taken, being at a house of *Daniel Lewis*, in Sheffield, I observed one *Hulbert* strike a number of Bills, that *Lewis* came where we were, at night, and *Hulbert* asked him how long it would take him to sign these bills; he said they should be done next day by ten o'clock; and the said *Lewis* concealed the Press. This was all I knew of the matter; however they sent me to Albany, where I have been tried and condemned.

I forgive *Daniel Lewis* who swore falsely against me, excepting what I did in the woods, also my prosecutors, and die in peace with all men, praying God to pardon my sins and be merciful to my soul. *Amen.*³⁸

The resentment of Justice Woodbridge of Massachusetts against the assistants of the under sheriff of Albany County has already been mentioned, and the measures taken by the governor and council of New York to put an end to the proceedings against their officers have been given. But the Massachusetts authorities were in no mood to be appeased. As a result a civil action was undertaken by Ichabod Miller of Stockbridge against Joshua and Abijah Rood and Ichabod Squire, all inhabitants of the gore. Judgment was given against the three in the Inferior Court of Common Pleas held at Pittsfield on March 9, 1773.³⁹ Furthermore, in the same month a grand jury of Berkshire County indicted Daniel David (or Davis) of Albany, Israel Spence and Joshua Whitney of Albany County, and Abijah and Joshua Rood and Ichabod Squire, the last three living in a place called the gore, to the west of Stockbridge, in Berkshire County, for an assault on Ichabod Miller.⁴⁰ As a result of the judgment against the two Roods in the civil action they were sentenced to pay £45 and in addition costs of £8/3/10. They further were compelled to attend from court to court in both the civil and criminal actions, so that they incurred expences of £20/3/4.⁴¹ Naturally they asked the governor for relief and at the meeting of his council on April 13, 1774, the

³⁸ *Ibid.*, May 6, 1773; cf. *The Massachusetts Gazette; and the Boston Weekly News-Letter*, April 22, 1773, p. 3.

³⁹ O'Callaghan, *Eng. Mss.*, p. 815.

⁴⁰ *Ibid.*, p. 815.

⁴¹ NY Col. Mss. 100, p. 98.

board advised the lieutenant governor to refer the matter to the General Assembly at its next meeting and in the meantime to direct the treasurer of the colony to pay Joshua and Abijah Rood their expenses incurred on attending the courts in Massachusetts.⁴²

The General Assembly of New York was disturbed by the discovery that so many counterfeits of its latest emission had been struck off. On March 8, 1773, a law was passed entitled "An Act to remedy the Evil this Colony is exposed to from the great Quantities of counterfeit Money introduced into it." The first two paragraphs of this act give the general situation and the remedy prescribed to cure it. They read thus:

WHEREAS the Credit of the paper Currency of this Colony hath been of late greatly injured by the flagitious Practices of artful and wicked Men who have counterfeited and altered the same, and passed such counterfeited and altered Bills knowing the same to be counterfeited and altered: And as it is of the utmost importance to the trade and Interest of the Colony to prevent the Mischiefs arising from the Circulation of counterfeit Currency; and as it may tend greatly to defeat the Designs of the Counterfeiters if the true and genuine Bills be distinguished from such as are false and Counterfeited...

BE IT THEREFORE ENACTED by his Excellency the Governor the Council and the General Assembly, and it is hereby enacted by the Authority of the same That the Treasurer of this Colony for the Time being, Samuel Verplank, Teophilact Bache, and Walter Franklin and the major Part of them are hereby constituted Commissioners, and authorized to cause such plate or plates, and Device or Devices to be formed and engraved as they shall judge to be most difficult to be imitated and counterfeited as they or the major Part of them may think proper; and forty four thousand Copies thereof to be struck off upon thin paper to be pasted, glued or affixed to each of the Bills emitted by the Act [that of February, 1771] aforesaid.⁴³

Although the device or devices to be used on the thin sheets were left to the selection of the commissioners, they had before them the

⁴² Ms. Mins. Council 26, pp. 400-401.

⁴³ *The Colonial Laws of New York V*, pp. 510-511.

proposal made in the assembly by Colonel Schuyler that the plate represent "an eye in a cloud, -- a cart and coffins, -- three felons on a gallows, -- a weeping father and mother, with several small children, -- a burning pit, -- human figures forced into it by fiends, and a label with these words, '*Let the name of a Money Maker rot;*' and such other additions as they may think proper."⁴⁴ One may imagine that Colonel Schuyler's picture of the three felons on the gallows may have been inspired by the fate of three members of the Albany county gang, Belcher, Lovely and Packer.

⁴⁴ *Jour. Gen. Assembly NY III*, p. 50.

XIV

THE FORD GANG (1773)

Probably the most resolute and also the most skillful counterfeiter of New York currency during the entire Colonial Period was Samuel Ford. Through confessions made in 1773 by his accomplices it was revealed that Ford had been in the business of money making for many years and that "in the year 1767, or 8, he followed it in New-York; but was apprehended on suspicion of making money, and admitted to bail, and even then set about preparing materials to renew the business..."¹

At some time prior to April 18, 1769, Ford was arrested, for on that day he appeared under recognizance before the Supreme Court meeting at the City Hall of New York, at which time his case was respited to the 21, then the 22, the 24, the 27, the 28 and finally the 29, when he appeared "and Proclamation being three times made and no Person appearing to prosecute, On Motion of M^r Kissam Ordered that the Defendant be discharged from his Recognizance."² Thus the authorities, probably because of lack of sufficient evidence, allowed a most accomplished criminal to slip through their fingers and ply his business of counterfeiting unmolested for several years to come.

After his trouble with the law in New York City Ford removed to Hanover, in Morris County, New Jersey. The first hint of further difficulty for him and his associates was an advertisement placed in *Rivington's New-York Gazetteer* of June 10, 1773, by Samuel Haines of Morristown. It read as follows:

Twenty Pounds Reward. Whereas on Friday or Saturday the 28th or 29th of May, came to my house at Morris Town, a man of middle size, aged between 25 and 30 years, of a lively countenance, and streight hair:

¹ *Rivington's New-York Gazetteer*, Sept. 9, 1773, p. 2.

² Ms. Mins. SCJ 1769-1772, pp. 2, 9, 10, 12, 14, 19, 21, 24.

Had on a brown coat, striped jacket, white breeches and stockings, rode a dark bay horse, says his name is Reddon, or Redmon, and that he came from Pennsylvania, with whom I chang'd a Ten Pound York bill (of the latest emission of that currency) for twenty-five dollars; the bill was marked on the back H. in one of the corners. The dollars since prove to be counterfeit, of which he had many more with him, and it is supposed will offer them to change for paper money. He enquired the road to Goshen and it is likely is gone that way. If any person or persons will apprehend and secure him in any of his Majesty's goals, so that he may be brought to condign punishment, shall receive the above reward of Twenty Pounds, by me."

As Samuel Haines was involved with Ford in counterfeiting, it would almost seem that by his advertisement Haines was attempting to avert suspicion from himself.

In any event the same newspaper, on July 22, 1773, printed this item:

On Friday last was apprehended at his house at Hanover, in Morris county, the well known Samuel Ford, who had been long suspected of counterfeiting the paper currency of New-Jersey, with which he was accustomed to travel into Pennsylvania, Maryland, and other provinces, and has for several years passed the same to a very large amount, as the lawful emission of the Jersey Treasury. He went to Ireland six years, and to England eighteen months ago, some time after the last emission of the New-York currency, no doubt with views of procuring dies, stamps, paper and prints, to imitate the true bills in the most plausible manner, and to carry on this pernicious practice of plundering the public. He broke gaol on Saturday night being aided in his escape by one John King, a veteran in villainy and a confederate with him in this species of it. The Sheriff, at his wit's end, on occasion of this unfortunate incident has raised an hue and cry, published a description of their persons, and offered a reward of 50 l. for apprehending Ford, and 25 l. for the person of King, which, with many other particulars, will be inserted in this next week's Gazetteer.

The advertisement, which all printers were requested, as it was "a Matter of very publick Consequence," to place in their newspapers, was dated "Morris-Town, 18th July, 1773," and couched in these terms:

FIFTY POUNDS REWARD. Broke from Morris County Gaol, the noted SAMUEL FORD, accused of, and committed to Gaol for counter-

feiting New-Jersey Paper Currency. He is a well built Fellow, about thirty Years of Age, five Feet ten Inches high; had on when he went away, a Nankeen Waistcoat and Breeches, a brown Coat, plain brown Thread Stockings, a good pair of Shoes, and silver twisted Buckles: It is supposed he has taken with him a suit of pale sky coloured blue Clothes, with a large silver Twist gay Button, he has short brown curled Hair, very red Cheeks, and a remarkable Dimple in his Chin. He is an artful Fellow, — with the Serious and Grave, can put on the Face of Seriousness, Religion, and Gravity, and with the Gay, can behave with as much Levity as any one. In the Year 1768, he was committed to the Gaol in the City of New-York on Suspicion of counterfeiting Jersey Paper Currency: — Since which, in the Year 1771, he has been in England and Ireland, from whence he returned in 1772 to Hallifax, from thence to Boston, and so on to this Place: And from that Time to the Day of apprehending him he lived in Morris County, and made frequent Excursions to Philadelphia and New-York, upon the Business (it is supposed) of exchanging Counterfeit Money. It is suspected that one JOHN KING, late of Morris County, a square well set Fellow, about five Feet eight or nine Inches high, with short brown coloured straight Hair, full Face, and rather dark Complexion; also accused of making and counterfeiting Money; is in Company with said Ford, as he absconded at the same Time, and gave Ford Assistance in making his Escape. the said JOHN KING has been frequently within a few Years past, at Philadelphia, and Fort Augusta, and in the Year 1770 and 1771, was at Wioming, and served under the Government of Pennsylvania, against the New-England People. Whoever takes said Ford and secures him in any of his Majesty's Gaols, so that he may be had again, shall receive the above Sum of Fifty Pounds, and all reasonable Charges: And whoever takes said KING, and brings him to me, or to the Gaoler of said County of Morris, shall receive a Reward of twenty-five Pounds, and all reasonable Charges. The above Reward shall be paid by me, THOMAS KINNEY, High Sheriff of the County of Morris.³

While the whole countryside joined in the search for the two fugitives, who were suspected of concealing themselves in caves,⁴ a

³ *New-York Journal; or, the General Advertiser*, July 22, 1773, p. 3 and *Rivington's New-York Gazetteer*, July 29, 1773, p. 1.

⁴ *Rivington's New-York Gazetteer*, July 29, 1773, p. 3.

person convicted at Amboy of coining dollars and half joes gave information of several others concerned. Thereupon Samuel Haynes, one Eyres, Benjamin Cooper, Doctor Barnaby Budd, Captain Joseph Morris, and David Reynolds, all of Morris County, were at once arrested and four of them received sentence of death for counterfeiting Jersey money. Also a Captain Joseph Richardson was informed against for counterfeiting but after his arrest he escaped from the officer who had taken him. He was described as a middle aged man, six feet one or two inches high, of fair complexion and light brown hair, a well made, stout, active man. Further, a reward of £500 was offered for the discovery of the author of the Pennsylvania counterfeits.⁵

A letter, dated Morris-Town, Aug. 30, 1773, and sent to James Rivington, gave the results of a special Court of Oyer and Terminer held there for the discovery and trial of the persons concerned in counterfeiting the paper currency of New York, Pennsylvania and New Jersey. The author wrote:

This account you would have had sooner, but it was thought (for certain reasons) prudent not to publish it until this time.

You have already mentioned in your paper that Samuel Ford and John King had escaped from goal. Their escape made it extremely difficult to discover their accomplices. The Court opened on Tuesday the 11th, and it was the Friday following before the least intimation could be got of any person concerned, when one of them, who lay under the *censure* of three convictions, the one for aiding Ford and King in their escape, and the others for high misdemeanors, on being hard pushed, and in order to mitigate his punishment for these crimes, began to make a confession, this soon alarmed another of the accomplices, who made an ample and full confession.

By which confessions, and those of the persons afterwards apprehended, these facts appeared — That Ford had been in the business of money making many years, that in the year 1767, or 8, he followed it in New-York; but was apprehended on a suspicion of making money, and admitted

⁵ The *Massachusetts Gazette*; and the *Boston Weekly News-Letter*, Sept. 9, 1773, p. 1: a dispatch from Philadelphia dated August 25.

to bail, and even then set about preparing materials to renew the business, that he soon removed back into this county, where he again entered into it, and made a connection in Philadelphia, with a certain Captain Joseph Richardson, from whom he got a supply of types, he then attempted the New-York emission of Three Pound Bills, and made a considerable sum, but complained of the thinness of the paper, and the bad credit of the currency; at least in this and the neighbouring provinces, and gave a preference to the Jersey currency; but it is thought did little at it till the Pennsylvania emission of 1769 came out, when he with Captain Richardson went to Ireland, and from thence to London and the manufacturing towns, and Ford applied himself to learn the business of an engraver and type maker, and from his knowledge before in the art of carving, and an uncommon natural genius, he in the course of three months became so perfect a master of the business, that (on his return to America) he made all the types for his press, and in so masterly a manner, that the imitation of the Jersey and Pennsylvania bills, which were struck by them of Three Pounds, and Thirty Shillings is so exact that the difference cannot be discovered without the most strict examination of a person well acquainted with the true bills.

From the time of his return, till he was apprehended, he went on with uninterrupted success, and emitted large sums of the Jersey and Pennsylvania currency; but principally of the latter, for these two years past, and was the less apprehensive of being detected for the following reasons:

1st. His bills had stood the test of several treasurers examination, and had had their sanction, which he ever made an invariable rule to secure before he passed any of his new emissions.

2dly. His press and all his implements were in an almost impenetrable swamp, at a mile distance from his house, and in which the water, most part of the year, was half leg deep, so that no person could track him, and he must *crawl* on his belly some rods before he could reach it.

3dly. As no person, except King and Richardson, knew where he did work, or had ever seen the place, and these, and all others concerned, were sworn to secrecy. — He used to go to his work at day light, in the morning, with his gun, so that no person could suspect him. Ford was called the *Treasurer for the three provinces*. He signed his own bills. By direction of the Court a number of persons went into the swamp, in search of his types, &c. but found only his press, and a leather that covered the bills when they

were struck, on which was the impression of a Pennsylvania Bill of £3, of the emission of 1769.

Upon these facts the following persons (who were only concerned as passers of the money, except Reynolds, who procured some types for Ford) to wit, Benjamin Cooper, Esq; Doctor Bern Budd, Samuel Haynes and David Reynolds, were indicted and plead guilty to their several indictments, and on the nineteenth they received sentence of death, to be executed the 17th of September next. Few scenes ever were more truly affecting than the one in the court-house, at the time of sentence passing. — These four persons are remarkably handsome fine looking men, three of them about thirty, the other 40, they are all married and have children. All are descendants from the first families in the province, and all have parents living, and numerous relations — the attendance of their relations and friends added much to the solemnity of it, so much that it is better conceived than described — among a thousand people there was scarce a dry eye. The spectators were more sensible affected for those unhappy persons, as it appeared they had been drawn into it by the art, cunning and perswasion of that VILLAIN FORD.

These were all the persons apprehended for capital crimes, except justice Ayres, whose crime was committed in Sussex county, it appeared he had not been in the practice for some time past, and if any judgement can be formed of his repentance, by his conduct and carriage, it was sincere before he was suspected, as his life had lately been so exemplary, that the congregation to which he belonged had promoted him to the rank of deacon, and the parson was so fully convinced of his innocence, that on the Sunday after his committment he PRAYED for his protection from *false accusers*, and the Sunday following a report prevailed that he was released, when the Parson returned thanks for it; but alas! before the next Sunday certain accounts were received that he had confessed his crime.

During these enquiries, sufficient evidence appeared to convince every one present, that Ford was one of the Persons that robbed the Treasury of this Province some years since, both, from his own confession to one of the convicts, who declared it on oath, as also from many other circumstance.

From this account of Ford, the Public must view him in the light of the most accomplished *Villain*, that this country ever produced, and it is hoped it will stimulate every well-wisher to the community throughout the continent, to be watchfull for, and active in apprehending him, especially

12*

when they have the promise of 500 l. from the Governor of Pennsylvania, for convicting the Person who counterfeited the Currency of that Province, and of his being the man, against whom there is the fullest Proof. — It is supposed he is gone to the Ohio, and intends going down to the mouth of the Mississippi, Richardson has also made his escape.

The Grand Jury in a polite Address, thanked the Court and Attorney General for the great Pains they had taken, in aiding them in their discoveries, and in a very particular manner gave their thanks; and those of the County to some Persons, whose activity had laid a foundation for detecting and breaking up this nest of public robbers.

You should have had this at large with the answer to it, but too much of your Paper would be taken up thereby, for one subject to ingross.

Thus Sir, I have given you a brief account of the facts that appeared to the Court, so far as they relate to the Paper Currency...⁶

The pursuit of Ford occupied considerable space in the newspapers for some time. On September 9, 1773, *Rivington's New-York Gazetteer* reported: "By a letter from New-Jersey, dated the 6th instant, we have certain intelligence that Ford the money-maker, was a few days past on the West branch of the Susquehanna, where a number of persons, from all quarters are gone in pursuit of him, so that the much injured public may now expect this most dangerous man will be apprehended, and exemplarily punished, a circumstance most ardently wished, as it may possibly lead to an extension of mercy in favour of several persons who have been unhappily, through his immediate means brought into the most shocking and desperate circumstances."

New light on the affair was shed by the following account published a week later in the same newspaper:

On the 3d instant a further and very strict search was made for printing materials (concealed by Ford, the money maker) in the swamp where the press was found, when, after much diligence exerted, a set of plates for printing the currencies of Maryland, Pennsylvania, New-Jersey, and New-York, with a quantity of types and other utensils for carrying on the

⁶ *Rivington's New-York Gazetteer*, Sept. 9, 1773, p. 2 and *Supplement to the Massachusetts Gazette*, Sept. 30, 1773.

counterfeiting bills of each province, were discovered and secured. In the course of his flight he put off some Jersey bills of his own manufacture amongst the Indians, who being afterwards apprized that they were counterfeited, very chearfully joined in the pursuit of this most pernicious artist.

Positive accounts are received that Ford and King were at Fort Augusta, near Susquehannah, on the 29th of August, he was hovering in a canoe on one of the branches of that river, so he is not very likely to escape.

We are just now informed that Ford and King were on the 5th instant at a village called Annaquauga, and the chasseurs expected to be up with them the next night.

The next number of *Rivington's New-York Gazetteer*, on September 23, devoted space to the latest developments:

Last Friday between ten and twelve o'clock, was executed at Morris Town, East-Jersey, David Reynolds, who was convicted of counterfeiting and passing of base money; he died very penitent. Cooper Budd and Haines, condemned with him, are respited to the 15th of October. The public shall shortly be made acquainted with many interesting and authentic particulars relative to this dangerous confederacy. The last accounts of Ford, the most heinous of this destructive community, are, that he was seen asleep under a tree, guarded by King, and another man well armed; they take their rest alternately in this manner. Ford is reduced by a fever, joined to a complication of the most loathsome distempers, which prevent his travelling now any more than five miles a day, and as there are some very determined people engaged in the pursuit, it is expected he is ere now either found dead or taken alive.

The reason for the respiting of Cooper, Budd and Haines is probably found in this extract from a letter from Perth Amboy, dated September 15 and printed in the *New-York Journal; or, the General Advertiser* of September 23, 1773: "The Wives and Relations of most of the unhappy Money Makers, now under Sentence of Death, are here with the Governor, in Order to solicit him for a Reprieve. So many unhappy People wandering about the Streets, is really an affecting sight."

The *New-York Gazette; and the Weekly Mercury* of September 27, 1773, thus recounted the story of Reynold's death and the respiting of the others:

On Friday the 17th Instant at Morris Town in East New Jersey, was executed, David Reynolds, a Native of Ireland, about 32 years of age, for counterfeiting the money Bills of Credit of that Colony. He arrived there about ten Years ago, and chiefly followed the farming business till getting acquainted with one Rosecrans⁷ (executed some time ago for the like Crime, but without declaring his Accomplices) he was by him led into the Scheme of making and passing counterfeit Money; after the Execution of Rosecrans, Reynolds accidentally met with Capt. Richardson (of Philadelphia, who is fled) and getting acquainted with each other's Characters, was by him introduced to Ford, Haynes, Cooper, Budd, King, and the rest of the Gang. Ford the Principal, termed by the Rest, the Treasurer of the three Provinces, had counterfeited the Money Bills of New-York, New Jersey, and Pennsylvania, in so Masterly a manner as not to be distinguished from the true Bills without the nicest Inspection, and also several of the Gold and Silver Coins current in the British Colonies; and in passing these, Reynolds and the Rest of the Accomplices continued, till Ford and King were apprehended and imprisoned in Morris County Gaol, from whence they soon after made their escape, as mentioned in the Papers. One of the Gang being convicted of aiding them in their Escape and other high Misdemeanors, to mitigate his Punishment, made some Confessions tending to the Discovery of the Rest, which alarmed another, who made an ample confession of the whole, in Consequence of which Reynolds, Haynes, Cooper, and Budd, were tried, confessed their Guilt, and were condemned to be hanged. Their Execution was ordered to be on the 17th Instant; before the Time, Budd and Haynes were respited for a Month, but Reynolds and Cooper were ordered to prepare for Execution at the Time appointed. A few Minutes before the Time, Cooper confessed himself privy to the Robbery of the Treasury at Amboy, and that he received

⁷ Harman Rosecrans (or Rosencrantz) was arrested and committed to jail in Elizabethtown on August 18, 1764, for passing counterfeit twenty shilling bills of Pennsylvania; in December, 1769, he was arrested for counterfeiting £3 bills, pleaded guilty before a Court of Oyer and Terminer, was sentenced to death and was executed in May, 1770 (see Harrold E. Gillingham, *op. cit.*, pp. 33-34, 39.)

Three Hundred Pounds of the Money; on which he also was respited till he should make further Discoveries. Reynolds was therefore ordered for Execution alone. . .

Cooper confessed that he was privy to the robbery of the Treasury at Amboy, and received 300 l. of the Money, that it was concerted by Ford and perpetrated by him and three Soldiers then quartered there; that the plan was, first to attempt to carry off the Iron Chest, if that fail'd, next to take the Key from Mr. Skinner's Bedroom, and to kill him or any Person who should discover them; and that if afterwards any of them should be suspected and convicted, they were to turn King's Evidence and accuse Mr. Skinner as being the only Accomplice with them. When some of them were shocked at this Proposal as thereby an innocent Person might lose his Life; Ford replied, *no, damn him, he will only be condemned, he has Friends enough to save him from the Gallows*. That after breaking into the Treasurer's Office adjoining to his Bed Room, they attempted to carry off the Chest, but finding it difficult, set it down again, and breaking open a Desk in the Room, in hopes to find Money, they therein found an old Key to the Money Chest, which was rusty and thought unfit for Use (the Key then used being in Mr. Skinner's Bed Room) with this old Key, they opened the Iron Chest, and thereby the Lives that would been exposed by their Search for the other Key, were probably preservd'. The Governor and Council of New Jersey, are to meet in a few Days, when further Particulars relating to this Matter will be known.⁸

Word of Richardson reached New York, and then Boston, through a gentleman who came from Philadelphia. This person stated that it was currently reported in the latter city that Richardson was taken in Virginia, where he had been pursued by three men. It was said that he had killed two of them and made a pass with a sword at the third, who, with his hand parried the blow and took away the weapon.⁹ With regard to the other fugitives and Richardson, the following report was published in *Rivington's New-York Gazetteer* of September 30: "The principal pursuer of Ford and King, Mr. Scott who, on account of his particular attachment to one of the present un-

⁸ The same account is also found in *The Massachusetts Gazette; and the Boston Weekly News-Letter*, Oct. 7, 1773, p. 2.

⁹ *The Massachusetts Gazette; and the Boston Weekly News-Letter*, Sept. 30, 1773, p. 2.

fortunate persons at Morristown, was extremely interested in taking the first of these men, is returned without being able to come up with them, the persons he had chased in expectation of their proving to be those he went after were two Indian traders, all that he could learn from these was, that Richardson of Philadelphia and Thomas Budd joined Ford and King a little beyond Juniata, from whence they all sat [*sic!*] out together, well armed for the Mississippi, so that there remain very little hopes of their being secured."

An item dated New York, October 4, which appeared in the *Massachusetts Gazette*; and the *Boston Weekly News-Letter* of October 14, assured the public that Reynolds was not a native of Ireland, as had been stated, but was born in Pennsylvania, where his parents were still living. It also discounted a report current in some parts of New Jersey that Ford, Budd and King had escaped on a vessel bound to the West Indies and stated the following reason therefore: "The counterfeit specie lately put off by them amongst the Indians, on Susquehannah, is an incontestible proof of their flight towards the Ohio, as they are exactly described to the pursuers by the very Indians who had received the bills in payment from them."

Ten days later *Rivington's New-York Gazetteer* informed the public of the latest aspects of the pursuit: "The pursuit of Ford and King was continued until it was found that they were certainly making for the Ohio; the party not prepared for proceeding to so great a distance, desisted, after having dispatched a man down to that river, who was to follow them to the city of New-Orleans; from this person no accounts have been yet received. But we are assured some hopes are still to be entertained of apprehending them, as Colonel Guy Johnson, on hearing of their escape, some time ago, dispatched a Mohawk Indian, one of the best runners of that nation, with exact descriptions and proper instructions to follow them down the Ohio. In quest of these fugitives there have not been discovered the least traces of either Richardson or Budd, as has been reported, they are supposed to have taken another route."¹⁰ The *New-York Journal*; or,

¹⁰ This is also printed in the *New-York Gazette*; and the *Weekly Mercury*, Oct. 18, 1773, p. 3-

the General Advertiser, on the same day, October 14, revealed that there was new incentive to apprehend Richardson and Ford, as the Governor of Pennsylvania on October 4 had proclaimed a reward of £300 for the capture of each man. Richardson was described in a proclamation issued by Governor Dunmore of Virginia and published in Rind's *Virginia Gazette* of September 9 as "about 43 years old, above 6 feet high, very stout, active, and resolute, of a fair complexion, very light brown hair, and well dressed... smooth of speech and sensible."

On December 13 it was reported in the press that Governor Franklin of New Jersey had pardoned Haines, Budd and Cooper,¹¹ but the desire of the authorities to lay hands on Ford and the others who had escaped was as great as ever. An item, dated Baltimore, November 13, and printed in the *Massachusetts Gazette; and the Boston Weekly News-Letter* of December 16, was concerned with Richardson. It read as follows:

A letter from Lancaster county to a gentleman in this town says, "The famous Richardson, who has long been in a fair, or rather foul way of making money, after taking leave of his wife and family, who lived in the Great Valley, lodged, the night before he took flight towards the Ohio, at Mr. M.....s; during his stay there, which was about nine hours, he discovered symptoms of a mind rather warily than fearfully agitated, and seemed resolutely fixed to defend the most desperate attack on his person. He was well armed, as was also a man that attended him, who, soon as day dawned, took his station before the house, watching narrowly every person who passed, until they departed. On Richardson's going off, being asked if he was not afraid of being taken, he replied, 'no; damn me! A man whose pockets are lined with money, and his heart with courage, has nothing to fear but God; and before I am heard of again in Pennsylvania, I shall be out of the reach of pursuit.'"

Governor Franklin of New Jersey, in the light of the recent events, on November 12, 1773, addressed the General Assembly of the province with these words:

¹¹ *New-York Gazette: and the Weekly Mercury*, Dec. 13, 1773, p. 3 and the *New-York Journal; or, the General Advertiser*, Dec. 16, 1773, p. 3.

A Discovery was made some time in the beginning of the last summer of a number of persons in the counties of Middlesex and Monmouth, concerned in making a base kind of Half Johannes, and Spanish Dollars, which happily led to the discovery of another gang of villains in the counties of Morris and Sussex, who had for several years past been employed in counterfeiting and passing the paper currency of this and the neighbouring colonies. From the confessions of some of them, corroborated by many striking circumstances, the affair of the robbery of the treasury, which had remained so long enveloped in darkness, has likewise been brought to light. Unluckily some of each gang have made their escape out of the province; but all of the former who were apprehended, and one of the chief of the latter have received that punishment for their crimes which the law would permit; three others, who were sentenced to death, have been respited, for very particular reasons, as you will see by the papers I shall order to be laid before you. No endeavours have been, or shall be wanting on my part, to have those who escaped, apprehended and brought to justice.

As the Mischief in which these persons were engaged is of such extensive and pernicious a nature, I cannot but congratulate you upon the stop which has been put to its further progress: Nor can I doubt but you will think with me, that the thanks and grateful acknowledgements of the public are due to those Gentlemen who have with great zeal and abilities, and with considerable trouble and expence, been the means of detecting and apprehending the authors of it.

On this occasion I think it proper to recommend to you the passing of a Law to make it a felony to counterfeit in this province the silver and gold coin of foreign countries. Many of them have now so general a circulation here, that the mischiefs resulting from their being counterfeited may be as destructive as the counterfeiting of our own paper currency.¹²

Five days later Governor Franklin followed his speech with a proclamation offering a reward of £300 for the apprehension of Ford,

¹² *Rivington's New-York Gazetteer*, Dec. 16, 1773, p. 1. The same is given in the *New-York Journal*; or, *the General Advertiser*, Dec. 16, 1773, p. 1. The governor added: "In all Probability, if Government had been empowered to hire a Number of active Men to have gone off immediately in different Parties, in Pursuit of these Delinquents, they would ere now have received the Punishment due to their Crimes."

a like sum for the capture of Richardson, and of £50 for the taking of John King. *Rivington's New-York Gazetteer* of December 16, 1773, which carried the proclamation, pointed out that the total of rewards for the three counterfeiters was £750 for Ford, £600 for Richardson and £75 for King. The newspaper added that it was suspected that Ford would use the alias of Samuel Samson and King that of John Horton.

The same newspaper on January 20, 1774, was still hopeful that Ford and King would be taken. "The pursuit of Ford and King the money-makers," wrote its printer, "has, ever since their escape from justice, been unremitted; and though it has not hitherto proved successful, yet there still remains great encouragement to expect they will be taken, -- an event that must reconcile every one to the pardon which has been lately vouchsafed to the three persons set at liberty from confinement at Morris Town; and it is hoped a few weeks will enable us to pronounce these adventurers to be in safe custody." Unhappily for Justice, Ford and King vanished into the west for the time, but it has been stated by the Reverend Dr. J. F. Tuttle that Ford later took the name of Baldwin, settled in Virginia and lived there many years after the Revolution.¹³ Their accomplice, Richardson, was not so fortunate, for all his bravado. He was eventually captured and confined in the Lancaster County jail. On June 19, 1777, he was given permission to secure bail and in the spring of 1780 was discharged from confinement on condition that he leave Pennsylvania and never return without permission.¹⁴ Richardson could probably thank the Revolution, with its confusion and change of authorities, for the fact that he escaped death on the gallows.

¹³ *New Jersey Archives* (Newark: Daily Advertiser Printing House, 1886) X, p. 413, note 1.

¹⁴ Harrold E. Gillingham, *op. cit.*, pp. 42-44.

THE CLOSE OF THE COLONIAL PERIOD

In addition to the members of the Albany County and Ford Gangs there were other counterfeiters who attracted the attention of the authorities. On January 21, 1773, a certain John Pell of North Barrington was indicted for passing a counterfeit five shilling bill, probably to one Edward Welsh. He was arraigned in the Supreme Court and entered a plea of not guilty. On the next day he was tried, with Edward Welsh, Jasper Ruckle and Alderman George Brewerton as witnesses for the King, and Samuel Avery and Samuel Stevens as witnesses for the prisoner. The jury, without going from the bar, found the defendant not guilty and he was discharged.¹ It may be noted that almost twenty years earlier Pell had been in trouble with the law, for Attorney General Kempe had filed an information for breach of the peace and assault against John Pell of Eastchester in the County of Westchester, yeoman. He was described therein as "being a disorderly Person and Common Disturber of the Peace." It was specifically charged that in the house of one Caleb Morgan he assaulted Morgan's wife, Abigail, threatened to kill her, and called her "a damned Negro bitch." When he was ejected from the place, he broke in again, threw part of the door into the street, and also broke open the door of an inner room.²

That there was a knot of money makers or passers of counterfeits in Westchester County is shown by a petition presented to the governor and his council by the judges and some of the justices and freeholders of that county. They stated that there were in the county jail three persons, Zephaniah Hubbs, Abraham Miller, Jr., and Thomas Smith, charged with passing counterfeit money of New York. These men had

¹ Ms. Mins. SCJ 1772-1776, pp. 65, 68; the *New-York Journal; or, the General Advertiser*, Jan. 28, 1773, p. 3.

² H.R. Pleadings K 950.

families dependent on their labor for their support. If they were kept in jail until the regular time for holding court, it would bring great loss to the families and cause much trouble to the jailer and others, especially since an attempt had been made by persons without to break open the jail. The petitioners requested, therefore, that a special Commission of Oyer and Terminer issue for that county, and the council at its meeting on April 12, 1773, so advised and the governor gave the necessary order.³

At some time between April 12 and April 28 a second attempt from without on the jail of Westchester County was attended with success, and Hubbs, and presumably other prisoners, escaped. At a council meeting on April 28 the governor communicated two papers which he had received from Justice Ludlow but which had been written by Elizabeth Hubbs, the wife of Zephaniah, to Abraham Hatfield, a justice of the peace of Westchester County. In them she signified that her husband was willing to reveal the identity of those persons who broke open the jail if he could be safe in so doing. The governor was advised to signify to Hubbs that he would be granted the King's pardon if within fourteen days he surrendered himself in New York City to one of the judges of the Supreme Court and "discover every thing he knows concerning the breaking the said Goal and Counterfeiting and passing Counterfeit Money, and the Persons by whom either of the said Offences have been perpetrated."⁴

Hubbs, however, was evidently not anxious to walk straight into the hands of the law, for instead of surrendering himself he wrote to Chief Justice Horsmanden and informed him that, if he could obtain a pardon, he was able to reveal the names of the persons who aided the prisoners in breaking jail at White Plains. Horsmanden sent the letter to the governor, who on July 7, 1773, was advised by his council to issue a pardon to Hubbs "on his appearing before the Board to make Confession upon Oath of the Contents of the said Letter."⁵

³ Ms. Mins. Council 26, pp. 350-351; cf. O'Callaghan, *Eng. Mss.*, p. 815.

⁴ Ms. Mins. Council 26, p. 354.

⁵ *Ibid.* 26, p. 361.

Doubtless arrests were made as a result of Hubbs' evidence and the persons apprehended were probably to be tried by a Court of Oyer and Terminer early in September, but this court was determined because three of the justices inadvertently left the bench and a new Commission was then ordered.⁶

In August, 1773, according to the *Pennsylvania Gazette* of September 8, a girl of about twelve years of age was detected passing counterfeit dollars in Providence, Rhode Island. Her father was immediately arrested and committed to jail. In his pocketbook, which he found means to hide while in the custody of the officer, was found a counterfeit New York bill. The false dollars were badly done and were dated 1770. Apparently the man was not operating alone, for the authorities promptly took up another person, and further arrests were expected.

Early in December, 1773, a member of another gang was apprehended in New York City, a certain Thomas Williams. He was examined by Alderman Brewerton, to whom he confessed that he was concerned with a gang of money makers in Connecticut, where, for this crime, he had been branded in the forehead and cropped. He was committed to Bridewell by the alderman. In the newspaper accounts Williams was described thus: "He is about 25 Years old, pitted with the Small Pox, and appears to be smart and sensible."⁷ The final disposition of his case is not known. Nor, indeed, is there any evidence of the fate of another person involved in the same business, one Daniel Rooley, who on June 9, 1774, was indicted "for passing counterfeit money" at the Court of General Sessions held at the City Hall in Albany.⁸

The only recorded case of a counterfeiter's arrest in 1775 is that of Nicholas Bassong, a mariner, who on April 25 was indicted in the Supreme Court in New York City for having, on March 24, in the

⁶ *Ibid.* 26, p. 372.

⁷ *New-York Gazette: and the Weekly Mercury*, Dec. 13, 1773, p. 3 and the *New-York Journal; or, the General Advertiser*, Dec. 16, 1773, p. 3.

⁸ Ms. Mins. Albany Co. Sess. 1763-1782, June 9, 1774.

West Ward of the city, paid a piece of base metal counterfeited like a Spanish silver quarter of a dollar to Mary, the wife of John Clarke, knowing it to be false. The witnesses against the prisoner were Mary Clarke and one William Day.⁹ On April 25 Bassong pleaded not guilty but was tried and convicted.¹⁰ Fortunately for him and for reasons which are not known — perhaps for having given information about other counterfeiters — Justice Jones, on his own behalf and that of Justice Ludlow, wrote to the governor to recommend mercy for the condemned prisoner.¹¹ A pardon was granted and was issued on August 3, 1775.¹²

On January 10, 1776, an indictment was filed in the Supreme Court against George Weght, a laborer, for having on January 6, 1776, in the West Ward of New York City, passed two counterfeit pieces of eight to Simon Dampler.¹³ On January 18 the prisoner was arraigned and pleaded not guilty. The next day he was tried, and, as he was a German and did not understand English, David Grim was sworn as an interpreter. The evidences for the King were Alderman Benjamin Blagge, whose examination of the prisoner was read in court, Simon Dampler and William Cooke, while evidences for the prisoner were the interpreter, David Grim, Peter Grim, Alexander French and Jacob Neffser. The jury, on returning to the bar, found the defendant not guilty and it was ordered that he be discharged.¹⁴

Another person apprehended at about the same time as Weght was Zachariah Smith Allen of New York City, a cordwainer. An indictment was filed against him on January 19, 1776, for having, on December 28, 1775, in the East Ward of New York passed a false £3 bill of Pennsylvania to William Thorn, and the witnesses against him were Thorn, Charles Brannon and John King.¹⁵ The same day a

⁹ Ms. Mins. SCJ 1772-1776, p. 188 and H.R. Pleadings K 12.

¹⁰ Ms. Mins. SCJ 1772-1776, p. 189.

¹¹ Ms. Mins. Council 26, p. 442, July 31, 1775.

¹² NY Col. Mss. 89, p. 586 and Book of Commissions 1770-1789, p. 173.

¹³ H.R. Pleadings K 333.

¹⁴ Ms. Mins. SCJ 1775-1781, pp. 61, 63, 64.

¹⁵ H.R. Pleadings K 241.

second indictment was also filed against him in the Supreme Court for having, on December 26, 1775, in the North Ward, passed another £3 bill of Pennsylvania to Margaret, the wife of James Gordon. In this case the witnesses were Margaret Gordon and Charles Brannon (or Brennon).¹⁶ Allen was arraigned on January 19, 1776, and pleaded not guilty on both indictments,¹⁷ but it would appear that his case was never tried.¹⁸ After his arrest a search had been made of his lodgings, where thirty-two £3 bills were found and about £70 worth of goods, an indication that he had passed a considerable number of the bills in New York City. The bills which he uttered were of the emission of March, 1769, and signed with the names of Richard Smith, John Johnson and Stephen Skinner.¹⁹

The *New-York Gazette: and the Weekly Mercury* of April 15, 1776, issued the following warning:

The Public are desired to beware of Counterfeit Connecticut Forty Shilling Bills now passing among us, of the Emission of May 10th, 1775. They are signed William Pitkin, Tho's Seymour, and Jesse Root, and though they are, upon the whole, a good Imitation of the true Bills, yet a very little Attention will be sufficient to distinguish them. The most distinguishing Marks by which the Counterfeit Bills may be known, are,

- 1st. They are entirely printed from Copperplate, whereas the Letters in the true Ones are done with Common Printing Types.

- 2d. At the Bottom of the T in *the* in the true Bills is this Mark ++, in the Counterfeits it is divided thus + +.

- 3d. The ff in the Counterfeits is also divided ff.

- 4th. The Word ASSEMBLY at the bottom of the bill is very clumsily done in the counterfeits.

- 5th. The T and h in the name of *Tho's Seymour* form but one letter in the counterfeits, resembling an b with a dash on the top of it, and the name of *Jesse Root* is written Jesse Roob.

- 6th. The word Committee opposite the signers names is very clumsily done.

¹⁶ H.R. Pleadings K 240 and H.R. Parch. 191 H 8.

¹⁷ Ms. Mins. SCJ 1775-1781, pp. 62-63.

¹⁸ Goebel and Naughton, *op. cit.*, p. 586, note 149.

¹⁹ The *New-York Gazette: and the Weekly Mercury*, Jan. 8, 1776, p. 3 and the *New-York Journal; or, the General Advertiser*, Jan. 14, 1776, p. 3.

7th. The *ornaments* or border round the face of the bill, and the *arms of the colony*, are much more distinctly [*sic!*] engraved in the counterfeits than in the true bills.

The following marks are observed on the *back* of the bill.

1st. The word *Forty* in forty shillings at the top is irregularly engraved, and the o and r are larger than the other letters.

2d. These marks] + at the end of the word *money* are much thicker in the counterfeits than in the true bills.

3d. In each of the 40 at the bottom of the bill the O is much larger than the 4.

N.B. It is said that counterfeit *Ten Shilling* Connecticut bills of the same emission are passing among us.

[See PLATE XII for genuine note of which this was a counterfeit.]

The source of the Connecticut counterfeits was, it seems, a gang on Long Island. About a month later they were taken up, according to the newspapers, which reported that "information was given to our Congress, that some Men on Long-Island were Counterfeiting Continental Money, also Massachusetts, Connecticut and New-York Currency; a Party of Minute-Men were ordered out the same Day, in search of them; they were all taken with what Cash they had struck off, likewise their Press, Tools &c. They were brought to Town last Tuesday and committed to Goal."²⁰

The story of this affair is found in great detail in the *Journal of the Provincial Congress* I for the months from May to October. On May 10, 1776, Jacob Sharpe produced in the provincial congress a letter from one Charles Friend of Westbury in Queens County. Friend wrote that he believed that Continental money was being counterfeited on Long Island. As a result of this communication a safe conduct was given to Friend, who presented himself and gave his testimony. He had heard at Cold Spring from a certain John Anderson that Henry Dawkins was living at the home of Israel and Isaac Young, where the three were making money, and that Isaac Ketcham was probably concerned with them.

²⁰ The *New-York Gazette: and the Weekly Mercury*, May 20, 1776, p. 3 and the *New-York or, the General Advertiser*, May 16, 1776, p. 2.

On the evening of May 11 Captain Jeremiah Wool crossed the East River to Long Island, proceeded to Huntington, where he was joined by Thomas Weeks. They arrived at the house of Isaac Young in Cold Spring at 2 A.M. on Sunday and there they found Isaac at home. A search revealed a secret door and a stairway which led to a garret, in which were discovered a printing press, an imperfect copy of a Connecticut bill of twenty shillings and several unfinished counterfeits. Everything was put in a wagon and taken to Williams' Tavern, whence men were dispatched who brought in Dawkins and a certain John Henderson. Dawkins made a statement involving the Young brothers, Townsend Hulet and Isaac Ketcham.

Dawkins, who had been born in England and apprenticed to an engraver in London, came to America after 1750, and for some offence found himself in the jail of New York City, probably early in 1776. Israel Young visited him there, offered to get him out of prison, and lent him money with which to pay the rent for his shop. Upon his release Dawkins went with his small son to live at the home of the Youngs in Cold Spring, where he was to print money. The Youngs secured from New York a bookbinder's press but, as this would not serve the purpose, Dawkins rubbed off a few Connecticut bills with a burnisher and one of the Youngs signed them.

At length a suitable rolling press was brought from New York and bills were run off. Hugh Gaine, publisher of the *New-York Gazette: and the Weekly Mercury*, had secured one of the Connecticut bills which had been rubbed off and printed a description of the counterfeits and pointed out how they differed from the true bills. From this newspaper item Dawkins made suitable changes in his plate, especially causing the two small crosses after the asterisk and before the obelisk to join together.

It was revealed that the Youngs had consulted the Tory printer, James Rivington, that they had found it difficult to obtain the type of paper needed, and had sent first Levi Lott and later Isaac Ketcham to try to secure some. Neither agent, however, had any success. Ketcham testified that Dawkins and the Youngs had figured that the

Tories would counterfeit money anyway, so that they might as well do it too. It appeared that Dawkins had previously cut some plates for the Continental Congress.

After being imprisoned in the City Hall of New York, the Youngs were sent off to prison in Litchfield, and Dawkins was jailed in White Plains, where conditions were so bad that on October 19 he petitioned the Provincial Congress for the death penalty. Eventually, however, he was released, for by the spring of 1778 he was free and making the first engraving for the New York State Coat of Arms.²¹ The fate of the Youngs is not known. Isaac Ketcham of Huntington had been involved in counterfeiting years before and had fled from the constables. Apparently he later made his peace with the authorities. On the present occasion, after spending some time in jail, he probably was released.

In June two Continental soldiers, Michael Lynch and Thomas Hickey, were confined in the City Hall of New York for trying to pass a counterfeit Continental bill and also the back part of a real bill of credit. The provincial congress decided that they could be tried only by court martial, so they were sent off with the evidence against them to General Washington.²²

At this same time there was apparently enough false copper coin in circulation to warrant the following notice in the *New-York Journal or, the General Advertiser* of June 27, 1776: "We hear it is proposed, that after three Months, the Currency of all copper coin made of base Metal, or wanting in Weight, is to be totally suppressed."²³

²¹ John Broome, "The Counterfeiting Adventure of Henry Dawkins," *American Notes & Queries*, March, 1950, pp. 179-184.

²² William Graham Sumner, *The Financier and the Finances of the American Revolution* (N.Y.: Dodd, Mead and Co., 1891), pp. 68-69 and *Journals of the Provincial Congress I* (Albany: Thurlow Weed, 1842), p. 496.

²³ The same item is found in the *New-York Gazette: and the Weekly Mercury*, July 1, 1776, p. 2.

XVI

CONCLUSION

Investigators of social and economic history will find in this study evidence of the wide scope of counterfeiting and its impact on the economy of New York and other provinces. Clipping, counterfeiting, and passing of bad money appeared in the seventeenth century and grew steadily in extent and harmfulness, so that before the Revolution highly organized gangs were working in cooperation throughout the British colonies. It was estimated in 1768 that there was a clan of five hundred counterfeiters in the colonies from New Hampshire to North Carolina. In the light of subsequent revelations the number seems to have been too small. Early in 1773 at a Court of Oyer and Terminer held in Albany no less than thirty six indictments were found against counterfeiters and passers, and within a few months other offenders were arrested in various parts of the province.

The exact amount of bogus money put into circulation cannot be determined but the evidence proves that it was very large. False bills amounting to more than £707 are recorded as burned by order of the court of Quarter Sessions in New York City between the years 1720 and 1766, not counting £676 taken from a single counterfeiter, Garrit Van Voorhees, One David Wallace brought £1000 of false Jersey bills to New York from Ireland; in a haystack on the farm of Dr. William Hooker Smith bills amounting to £739 were found; in the lodgings of Zachariah Allen the authorities came upon thirty-two £3 counterfeits and £70 worth of merchandise presumably purchased with false bills; Archilaus Lewis was supposed to have passed between £75 and £85 in New York City; John Davis, when arrested in Orange County, had £3500 in counterfeit Jersey bills on his person; Owen Sullivan confessed to having struck off £12 000 of Rhode Island money and passed £1600 of it in a single day; he also made £10 000 or £12 000 of

New Hampshire currency and large sums of four different emissions of New York; Ashur Baton, apprehended in New Jersey, had £1400 in false New York bills on him; a committee of the New York Assembly in 1773 reported that more than £1200 in false bills had been recently stopped, while the whole emission of February, 1771, had to be called in to have thin printed slips of paper pasted on the backs of the true bills; Samuel Ford had worked at his nefarious trade for many years before he fled and had been so successful and prolific that his associates called him the treasurer of the three provinces. So masterful was his work, that he never uttered any of it until it had first passed the inspection of the treasurer of the province whose bills he was counterfeiting.

The losses of the poor and ignorant must have been, for those days, enormous, for they were the ones who chiefly suffered. It was due to the enterprise of individuals and magistrates and the severe laws of the colony that the currency of New York was not discredited, as for example, was that of Virginia, where, in March, 1773, the governor informed the assembly that all emissions of their currency in circulation were so cleverly counterfeited as to make it "almost impossible for those the most knowing in such Matters to distinguish the good from the bad."¹ Indeed, when, in the fall of 1773, the horse-races were held at Leedes Town on the Potomac, "there was not half the money depending that would have been risqued on this capital event, as the Marylanders would not stake their property against the Virginia currency, which has been counterfeited in a manner unparalleled."²

As far as metallic currency is concerned, there was already in the seventeenth century clipping of Spanish and Massachusetts coins, and throughout the entire Colonial Period there were persons who counterfeited Spanish pieces of eight, quarters, half joes, doubloons and guineas, for Spanish, Portuguese and French coin was current in New York. In 1753-1754 the City of New York found its economy

¹ *The Massachusetts Gazette; and the Boston Weekly News-Letter*, April 8, 1773, p. 2.

² *Rivington's New-York Gazetteer*, September 16, 1773, p. 3.

seriously upset by a flood of false English halfpence and the resulting mistrust of all halfpence, good and bad alike. Seven hundred and forty one pounds of these coins were delivered into Quarter Sessions in 1754 and melted down as false.

It was only logical that persons experienced in working in metals were in some cases tempted to employ their skill in counterfeiting coin, silversmiths such as Garrett Onclabagg, Charles Hamilton, Gideon Casey,³ and Gilbert Belcher, or tinkers, as Patrick Butler and John Jubeart; or the son of a brazier, as Bastian Killet. Makers of false bills must of necessity possess technical skill, and among those accused or convicted of counterfeiting were printers and engravers, James Mark, Joseph Johnson, Lewis Jones, Owen Sullivan, Joseph Bill Packer and Samuel Ford.

Would-be counterfeiters, however, who were lacking in such technical knowledge had to apply to reputable craftsmen, a proceeding which often would result in a rebuff or in the denunciation of the criminals to the magistrates: thus a Boston printer sent off a man, probably an accomplice of Budd and Gustine, who made a suspicious request for type; an engraver in Newport denounced Budd and caused his arrest; three other engravers did the same when asked to make plates for printing bills: Abraham Ilive in England reported to the authorities Robert Jenkins; in New York John Hastier, goldsmith and engraver, informed about Samuel Flood and Joseph Steel, while Elisha Gallaudet led off Timothy Green to a magistrate.

The temptation to counterfeit and pass proved too strong not only for silversmiths, blacksmiths, tinkers, printers and engravers but also for persons in many walks of life. Among those accused or convicted of those crimes were represented such occupations as the following: yeoman, mariner, laborer, cordwainer, bloomer, carpenter, merchant, victualler, baker, schoolmaster, tailor, boatman, tavernkeeper, perukemaker, doctor, deacon, justice of the peace, soldier, lieutenant, captain, and colonel.

³ Harrold E. Gillingham, *op. cit.*, p. 28 and William Davis Miller, *The Silversmiths of Little Rest* (Kingston, R. I., 1928).

Not many women appear to have been involved in the business in the province of New York. Four, Susannah Elliot, Sophia Thomas, Anna Vanderspiegel and Mary Barnes, were charged with clipping or passing clipped coins but none were convicted. Catherine Johnson, however, the wife of the counterfeiter, Joseph Johnson, was found guilty of uttering false bills and was given twenty-one lashes on the bare back; Margaret Haynnie, who passed false dollars, was given twenty-one lashes and three months at hard labor; Joseph Bill Packer, of the Albany County Gang, stated that "Miss Polly," the sister of Daniel Lewis, a money maker, "an active, accomplished young lady, distributed the ink upon the plates when the impression was struck," but there is no evidence that she was ever brought to justice.

Many counterfeiters who had been apprehended escaped from the constables or from jail and often were not caught again; this was partly due to the generally deplorable insecurity of the jails, against which complaints are numerous in the minutes of the courts of general sessions of the various counties; several justices of Dutchess County, indeed, in a petition to the governor complained that the county jail was "by no means strong and secure enough" to hold the counterfeiters imprisoned there, while in 1761 the attorney general felt constrained to write to the sheriff of that county, sternly warning him of the penalties in case he allowed the counterfeiter, Hamilton, to escape. The high level of intelligence which their activities demanded made it all the more difficult to keep counterfeiters in custody, as is revealed by the escapes of Van Voorhees, Ichabod Higgins, Odell, Ford and others.

Furthermore, money makers in many instances could count on the assistance of confederates and sympathizers, as is illustrated by the jail break of Hubbs and others from White Plains, or that of John Finkell from the Dutchess County jail, in which his helper may have been a guard. Again, Justice Munro informed the governor that two constables, who, he believed, were concerned with the counterfeiters, suffered one felon to escape and let another go free when they were

supposed to be taking them to jail. "What," wrote Munro, "can a Justice do when the whole country combinds against him?" And sometimes even a magistrate could be remiss in such cases, as was Justice Dunning of Orange County, who, instead of prosecuting Obediah Smith for altering bills, let him go after causing him to burn the evidence.

The suppression of counterfeiting was rendered almost impossible because of the great difficulty of obtaining convictions, for, as a committee of the New York Assembly observed, the passing of counterfeit money was "an Offence rarely to be proved," and the records which have been preserved give the names of sixteen persons indicted but acquitted, or, in a number of cases, not prosecuted because of insufficiency of evidence. Many, also, who were found guilty were pardoned, as Berry, Mark, Jones, Meigs, Hulbert and Bassong. Sometimes, moreover, counterfeiters who were granted bail, as Coe, Lewis and Adams, who might have been brought to trial and convicted, preferred to forfeit their bonds rather than risk the penalty of death. Only three, Thomas Lynstead, Charles Hamilton, and Jonathan Woodman, chose suicide to standing trial.

There was, upon occasion, cooperation between the provinces⁴ but this depended upon the personal relations between the governors or the desire of one governor to oblige another. Often, however, there was apathy about the falsification of the bills of another province, and in this respect the New England colonies, notably Massachusetts, were particularly blameworthy. "To the extreme Laxity of the New England Laws towards this Species of Offenders," read a report of a committee of the New York Council, "it may be owing that the Bills of Credit of this Colony are so generally and greatly disparaged." In 1751 a New York newspaper commented bitterly, with reference to the acquittal of Samuel Dunston by a jury in New Hampshire, although he had been involved with Woodman and Bill: "*And it could hardly be unknown to the People of Portsmouth; since the Account of his flying from hence was in the Boston Papers, but as those Govern-*

⁴ See Goebel and Naughton, *op. cit.*, pp. 294-295.

ments are soon to have no more Paper Money, they may tis like, be little concerned about it." And again, when John Stevens died on the gallows, the same paper had earlier commented: "*If some of our neighbouring Governments would but act with equal Justice, it might be presumed, these Pests of Society would be something scarcer."*

The detection and apprehension of counterfeiters were sometimes directed by the governor's council, as in the case of Thomas Lynstead; in New York City the mayor, recorder, aldermen and magistrates took an active part; in the counties the justices of the peace were responsible for such matters, and some who especially distinguished themselves by their zeal were Bartholomew Noxon in Dutchess County and Munro, Adgate, Whiting, Savage and Culver in Albany County. Particularly brilliant work was carried out by persons from other provinces: Colonel Elijah Williams of Massachusetts played a leading part in breaking up the Albany County Gang, while Robert Clarke of Massachusetts and Justice Samuel Canfield of Connecticut deserve the credit for bringing about the downfall of the Oblong Gang. Eliphalet Beacher of Connecticut brought about the arrest and conviction of Owen Sullivan. The persons who actually caught Jonathan Woodman and his associate, Bill, were apparently Robert Benson and Abraham Mills.

The laws of New York were severe and by the time of the Revolution almost every conceivable form of counterfeiting, altering, or passing was punishable by death without benefit of clergy. The sentences meted out and the development of the legislation concerned with counterfeiting show that in the earliest period counterfeiting, clipping and passing were treated as "cheats." Thus, in 1680, Burrell, who confessed, was ordered to make restitution and fined, while Shore, who made no confession but was convicted, was given thirty lashes on the bare back; in 1698 Ludlow, convicted of passing, was sentenced to make restitution, pay the costs of the special sessions at which he was tried, pay £3 for the use of Trinity Church where the trial was held, and give security for his good behavior for three months; in 1702 Garrett Onclebagg, convicted of counterfeiting coin,

was fined £20 and costs and ordered to give security for his good behavior for one year. Such cases as these and the need of a remedy produced the law of 1702, to be in effect for one year, which set the penalty of imprisonment for a year and a day and forfeit of all goods and chattels for counterfeiting, filing, clipping or passing of foreign coin which was current in the colony.

In 1706 two false coiners — the law of 1702 had expired — Vank and Roberts, were whipped at the cart's tail and sentenced to pass one hour in the pillory. Doubtless their cases and perhaps others not recorded caused the government on October 6, 1708, to revive the law of 1702, now to be in force for ten years. In 1709 the first law for the emission of paper bills was passed, and this, and all succeeding acts of the same nature, made the counterfeiting of the bills a felony without benefit of clergy. Thus, when in 1713, Berry and Mark were convicted of the offence, they were sentenced to be hanged and only escaped death through a royal pardon.

A law of November 19, 1720, established the death penalty without benefit of clergy for counterfeiting, altering or passing counterfeited or altered bills of New York. In 1725 John Jones was convicted of passing such an altered bill and doubtless would have been sentenced to die on the gallows if a pardon had not been granted him. On November 11 of the following year a law was passed authorizing the stopping of counterfeited and altered bills and the destruction of them before a court.

Wallace and Willson in 1727 were convicted of passing false bills, but, as these were currency of New Jersey and not of New York, their offence was not a felony but a cheat, for which, however, extremely harsh punishment was inflicted: Wallace was sentenced to spend an hour in the pillory, to be carted, to be given thirty-nine stripes in New York County, then to spend one hour in the pillory and to be given thirty-nine stripes in both Kings County and Queens County, next to stand an hour in the pillory and to receive twenty stripes in Westchester County, and finally to remain six months in jail in New York City and then to be discharged, paying his fees; Willson's

punishment was somewhat lighter, an hour in the pillory, twenty-eight stripes and carting in New York County, an hour in the pillory and twenty-eight stripes in both Kings County and Queens County, one hour in the pillory and ten stripes in Westchester County, all this to be followed by three months imprisonment in New York City and discharge upon payment of fees.

In 1730 John Conner, convicted of coining, was hanged, on the basis of what law does not seem clear, since the law of 1708 had expired; in 1734 Thomas Copley, found guilty of uttering a false dollar, was sentenced to one hour in the pillory, thirty lashes and payment of fees, and in the light of this penalty it is difficult to explain the imposition of the death penalty in the case of Conner. The following year Catherine Johnson, convicted of passing counterfeit bills of New York, for which offence she could have been put to death, was let off, perhaps because of her sex, with twenty lashes and payment of fees. Patrick Butler, found guilty of passing counterfeit coin, in 1737 was sentenced by the Mayor's Court to spend a quarter of an hour in the pillory, to be carted and to be given thirty-nine lashes, after which he was to be deported to Westchester County and forbidden to return to New York City for six months.

A law of December 6, 1737, reaffirmed the death penalty of the act of November 19, 1720, but added that even if the crime was committed outside of the colony, indictments could be found against those guilty of counterfeiting, altering or passing counterfeited or altered bills of New York. In 1739 Samuel Flood, whose offence was requesting an engraver to make plates for him, was sentenced by the Mayor's Court to be carted and given thirty-nine lashes, after which he was ordered to leave the city and province within forty-eight hours and forbidden to return within six months. The same year this court sentenced Margaret Haynnie, convicted of uttering false dollars, to receive twenty-one lashes and spend three months at hard labor in the House of Correction, a considerably lighter penalty than that meted out in 1734 to a man, Thomas Copley, for the like offence.

John Stevens, convicted of making and passing false bills of New

York, in 1744 received the death penalty. The next year the counterfeiting and passing of foreign coin by Killet, Ryan, Moore and Maser apparently brought about the passage of the law of November 29, 1745, which fixed the penalty of death without benefit of clergy for the counterfeiting or passing of counterfeited French, Spanish or Portuguese gold or silver money. It should be noted that Maser, for want of a severe law, had escaped with the trifling fine of £5 and costs. After the new act of 1745 it is difficult to explain why the Court of General Sessions of Orange County in 1752 let off one Peter Bakcas, convicted of passing brass and other base metal for gold, with a fine of £2 and costs, unless the metal he passed was not coin.

In the spring of 1756 the notorious Owen Sullivan paid with his life for having counterfeited the bills of New York, and, as his plates, tools and materials were being concealed by his accomplices, the law of July 6, 1756, fixed death without benefit of clergy for those concealing these or contriving such objects or assisting therein.

John Higgins, found guilty of altering and passing New York bills, was hanged in 1762, in accordance with law. John Davis, however, convicted in 1766 of passing and causing to be passed false bills of New Jersey, could not be punished with death, since his offence was technically a "deceit." He was, therefore, required to pass one hour in the pillory and find security in the amount of £1000 for his good behavior for one year. The New York Assembly promptly moved to close the loophole by which Davis had escaped death, and on July 3, 1766, the penalty of death without benefit of clergy was fixed for counterfeiting the bills of *any* colony which passed in New York.

The following year Timothy Green, who confessed to having tried to have a plate made for counterfeiting the currency of another colony, was sentenced for this "misdemeanor" to spend one hour in the pillory, to be whipped through the city at the cart's tail, and to receive thirty-nine lashes on the bare back. In 1769 John Jubeart was hanged for passing false dollars; in 1773 Lovely, Packer and Belcher died on the gallows for counterfeiting and passing the currency of New York, while Hulbert, who received the same sentence for the crime, was

pardoned. Another recipient of royal grace was Felix Meigs, who had been condemned to death in 1772 for passing false £3 bills. In 1775 Nicholas Bassong was convicted of passing a false Spanish quarter of a dollar, but was pardoned before sentence was imposed. And, finally, in 1776, Henry Dawkins and the Young brothers, who a little earlier would beyond doubt have been sentenced to death for their counterfeiting activities, were sent to prison by the Provincial Assembly of New York.

The path of the counterfeiter in Colonial New York would have been a much easier one, had it not been for the public spirited activity of the printers of the newspapers. Cautions, which warned the public of false bills and coins and pointed out the harmful effects of their circulation on fair traders, commerce, and the people in general, were generally accompanied by careful directions how to tell the spurious from the genuine. "Cautions of this kind," stated one newspaper in 1761, "whenever necessary, are certainly right," and it added that it should be the care of everyone to bring the offenders to punishment. Indeed, the printers of the newspapers often had a very personal interest in detecting counterfeit bills, as well as the background necessary to point out the manner in which the false ones differed from the true, for in many instances the printer of the newspaper had also printed the true bills of credit of the province. Thus the emissions of July 24, 1724, of November 11, 1726, of October 17, 1730, of November 28, 1734, and of October 25, 1739, were all printed by William Bradford, publisher of New York's first newspaper, *The New-York Gazette*.⁵ The bills of the emission of December 16, 1737, were made by John Peter Zenger, publisher of the *New-York Mercury*.⁶ The emissions of July 3, 1759, and of March 22, 1760, were executed by William Weyman, publisher of the *New-York Gazette*,⁷ while those of January 5, 1770, and of February 16, 1771, were printed

⁵ *The Colonial Laws of New York* II, pp. 198–205, 338–345, 648–655, 885–892 and III, pp. 21–31.

⁶ *Ibid.* II, pp. 1015–1047.

⁷ *Ibid.* IV, pp. 350–355 and 398–418.

by Hugh Gaine, publisher of the *New-York Gazette; and the Weekly Mercury*.⁸

It has been seen that not even the penalty of death could eradicate counterfeiting. There was, to be sure, one method which would unquestionably have reduced the extent of the mischief and furthermore this method was known. This is the use of a "WATERMARK." As early as September 27, 1739, the printer of the *Boston Weekly News-Letter* wrote:

Notwithstanding the Laws made to prevent counterfeiting the Bills of Credit currently passing among us, it seems the Penalty of Death itself will not deter Persons from that wicked Practice, it plainly appearing from Time to Time that there are large Quantities of Counterfeit Bills put off and shifted about, to the great Damage of the Commonwealth in general and of the Honest Dealer in particular: We are therefore desired to inform the Publick of the Method which the Bank of *England* took to prevent the counterfeiting of their Bills or Notes, which they never could do till they came to it: They procured a Pair of Paper-Moulds exactly the Dimension of their Bills, with several Devices in the said Moulds: They also engag'd a Paper-Maker who procured a peculiar sort of Stuff for making the Paper, which is of that Nature and Quality that no other Paper is made of the same; and it is of such Strength as that it wears ten Times longer than any other sort of Paper whatever; and the Bank of *England* have never had one Bill counterfeited since they have followed the above Method.

Had the New York authorities heeded this suggestion, their troubles with counterfeiters would have been fewer.

As it was, in spite of the cautions in the newspapers, the severity of the laws, and the rewards offered from time to time by the government for the conviction of counterfeiters, the evil grew steadily with the increase in population, both in New York and in the other colonies. Thus, when the Revolution broke out, there were hundreds of skilled counterfeiters banded together to defraud the public. The majority of them doubtless adopted the same philosophy as that of Henry Dawkins and his associates, who figured that the Tories would

⁸ *Ibid.* V, pp. 24-46 and 149-170.

counterfeit the Continental and provincial issues, so that they might as well do it too. And when the British and the loyalists undertook the business of counterfeiting the currency of their opponents in order to undermine the Continental economy, their efforts, added to those of the criminal gangs already in existence, contributed largely to the utter collapse of the Continental currency.⁹

⁹ Cf. Kenneth Scott, "New Hampshire Tory Counterfeiters Operating from New York City," *New-York Historical Society Quarterly* XXXIV (1950), pp. 31-57.

MANUSCRIPT SOURCES

Abbreviations used in footnotes are set in *italics*. The following abbreviations of locations are used:

H.R. = Hall of Records, New York County.

NYHS = New-York Historical Society Library.

NYSL = New York State Library, Albany, New York.

Ms. Mins. Albany Co. Sess.

Minutes Albany County General Sessions of the Peace. (Albany County Clerk's Office).

James Alexander Papers (NYHS)

James Alexander, Supreme Court Register 1721-1742 (NYHS)

Ms. Mins. Circ.

Minutes Circuit 1721-1749 (New-York Bar Association)

Book of Commissions 1770-1789 (NYSL)

Conn. Archives

Connecticut Archives (State Library, Hartford, Connecticut)

Ms. Mins. Council

Manuscript Minutes of the Governor and Council of New York Province (NYSL).

James Duane Manuscripts (NYHS)

Ms. Mins. Dutchess Co. Sess.

Minutes of the Dutchess County General Sessions of the Peace (Adriance Library, Poughkeepsie, New York)

Gratz Collection (Pennsylvania Historical Society, Philadelphia)

Kempe Letters and Lawsuits, A-Z (NYHS)

New York Documents (Library of Congress, Washington, D.C.)

Ms. Mins. NYCQS

Minutes of the General Quarter Sessions of the Peace for the City and County of New York (Engrossed minutes, Office of the Clerk of General Sessions, Criminal Courts Building, New York; Rough Minutes, 1705/06-1714/15 and 1722-1742/43, H.R.)

Minutes of the Meeting of the Mayor, Deputy Mayor and Aldermen of New York City 1733-1743. Bound with *Ms. Mins. NYCQS 1722-1742/43* (Rough).

NY Col. Mss.

New York Colonial Manuscripts (NYSL)

NYSL Misc. Mss.

Miscellaneous Manuscripts New York State Library (NYSL)

Ms. Mins. Orange Co. Sess.

Minutes of the Orange County General Sessions of the Peace (Orange County Clerk's Office)

H.R. *Parch.*

Parchments (Hall of Records, New York County)

H.R. *Pleadings*

Pleadings (Hall of Records, New York County)

Ms. Mins. Queens Co. Sess.

Minutes Queens County General Sessions of the Peace (Queens County Clerk's Office)

Ms. Mins. Suffolk Co. Sess.

Minutes Suffolk County General Sessions of the Peace (Suffolk County Clerk's Office)

Ms. Mins. SCJ

Minutes Supreme Court of Judicature of the Province of New York (H.R.)

Ms. Mins. Ulster Co. Sess.

Minutes Ulster County General Sessions of the Peace (Ulster County Clerk's Office)

INDEX OF MONEY

A. BILLS

Connecticut, 130, 131, 193.

40/-, 192.

20/-, 194.

10/-, 193.

Continental, 193, 195.

Massachusetts, 92, 193.

£8, 71.

£3, 71.

40/-, 71.

30/-, 74.

20/-, 10.

10/-, 43, 87.

5/-, 43.

9^d, 71.

North Carolina, 126, 130, 169.

New Castle, 50.

20/-, 39.

18^d, 39.

New Hampshire, 89, 92.

£4, 76, 77.

20/-, 78.

5/-, 42.

2/6, 78.

New Jersey, 124, 126, 127, 142, 143,

145, 147, 169, 175, 176, 177, 181,

182, 196, 202, 204.

£3, 27, 29, 32, 121, 123, 135, 144,

178.

30/-, 32, 118, 121, 123, 141, 143,

151, 178.

15/-, 72, 73, 141.

14/-, 49.

12/-, 26, 27, 29, 49, 73, 122, 135,

138, 139.

6/-, 27, 29, 73, 74, 122, 135.

1/6, 29

18^d, 27.

6/- altered to £6, 110, 111, 112,

114.

3/- altered to £3, 113, 114, 115,

134.

3/- altered to 15/-, 141, 142.

3/- altered to 12/-, 112, 120, 122,

138, 139.

1/- altered to 15/-, 141.

1/- altered to 12/-, 113, 114, 115.

18^d altered to £3, 113.

1/- altered to 6/-, 79.

New York, 89, 91-93, 129-131, 142,

143, 145, 147, 152, 155, 160-162,

168, 172, 177, 182, 190, 193, 197,

202, 203, 204.

£10, 48, 49, 57, 70, 75, 81, 83, 86,

140, 175.

£8, 17.

£6, 17, 48, 127.

£5, 17, 21, 48, 49, 51, 57, 70, 75,

81, 83, 86, 94, 142, 145.

£4, 16, 17, 51, 75.

£3/2/-, 48.

£3, 21, 31, 51-53, 57, 70, 75, 83,

84, 86, 94, 96, 118, 120, 146,

148, 149, 151, 154, 160, 167,

169, 178.

40/-, 24, 31, 45-48, 53, 54, 56, 57,

75, 81-83, 86, 94, 96, 118, 120,

127-130, 145.

30/-, 21, 22, 31, 170.

20/-, 18, 19, 21, 22, 24, 51, 53, 57,

66, 75-78, 81, 83-86, 94, 96,

120, 145, 146.

16/-, 24, 48.

15/-, 48.

12/-, 22, 24, 48.

10/-, 17, 21, 34-37, 39, 48-51, 57,

70, 75, 78, 83, 86, 96, 140, 145,

146.

8/-, 24.

7/6/-, 39, 51, 75.

6/-, 22, 25, 48.

5/-, 48-51, 56, 57, 70, 71, 149, 154,

167, 169, 188.

4/-, 27, 48.

3/6, 48.

2/6, 39, 48.

Index of Money

211

- 2/-, 48.
15^d, 27.
half crown, 22.
£2 altered to £10, 110, 111, 113,
114, 116, 117, 127.
40/- altered to £5, 38.
10/- altered to £10, 45-47.
5/- altered to £5, 45-47, 118.
5/- altered to 10/-, 118.
1/- altered to 20/-, 24.
Pennsylvania, 169, 177, 182.
£3, 178, 179, 182, 191, 192.
30/-, 178.
20/-, 151, 182.
half crown, 75.
5/-, 27.
1/-, 27.
Rhode Island, 81, 82, 87, 89, 92, 94,
196.
£16, 88.
£5, 43, 44.
40/-, 60.
20/-, 58, 65, 66.
10/-, 42.
Virginia, 169, 197.
- B. COINS**
- aspers, 5.
bitts, 10, 11.
double bitts, 10, 11.
Boston Coyns, 2, 197.
Boston 1/-, 95.
cobbs, 98, 99, 118.
copper coin, 195.
one crown, 152.
dollars, 5, 7, 13-15, 33, 39, 40, 45, 68,
69, 78, 94, 96-100, 118, 119, 126-133,
137, 140, 144, 148, 152-157, 186,
190, 203.
double royalls, 10.
4/-, 118.
2/-, 97, 118.
1/-, 86, 95.
1/- gilded to pass as guinea, 139,
197.
lion (or Lyon) dollars, 14, 21, 22.
quarter dollar, 191, 197, 205.
doubloons, 68, 69, 97, 197.
farthings, 104.
half crown (plate), 66.
half dollars, 14.
half Johanneses, 139, 143, 186, 197.
half pistareens, 97.
half pistoles, 40.
pence, 119.
halfpence, 102-109, 198.
pieces of eight, 3, 10, 49, 57, 68-71, 78,
79, 97, 133, 153, 160, 191, 197.
pistareens, 95, 130.
pistoles, 40, 70, 71, 97.
royalls (or ryalls), 10.
Spanish coin, 2, 3, 7, 10, 14, 118, 197.
stiver, 1.
wampum, 1.

INDEX OF PERSONS

- Ackerman, Abraham Arie, 119.
 Ackerman, Lentice, 119.
 Adams, Joshua, 156, 167, 200.
 Adgate, Matthew, 154, 155, 159, 161, 170, 201.
 Akins (or Aikins), 60, 61.
 Albertsen, Sarah, 19.
 Aldrich, Andrew, 147.
 Alexander, James, 23, 45, 51-54.
 Allen, George, 61.
 Allen, Zachariah Smith, 191, 192, 196.
 Alsop, Mr., 82.
 Amos, Daniel, 11.
 Anderson, John, 193.
 Anderson, William, 12.
 Archer, John, 2.
 Ashfield, Richard, 23.
 Ashley, Joshua, 158, 162.
 Avery, Samuel, 188.
 Ayres (or Eyres), Justice, 177, 179.
- Bache, Teophilact, 172.
 Backas, Peter, 79, 80, 204.
 Baldwin (alias of Samuel Ford), 187.
 Banker, Christopher, 43, 48, 49, 51.
 Barberie, John, 11.
 Barnes, Mary, 10, 199.
 Barnes, Stephen, 71.
 Barnwell, Christopher, 86.
 Bassong, Nicholas, 190, 191, 200, 205.
 Baton, Ashur, 120, 197.
 Bayard, Stephen, 68.
 Bayley, John, 95.
 Beacher, Eliphalet, 87-93, 201.
 Beacher, Eliphalet Jr., 90.
 Bean, Eleanor, 142.
 Beecher, Caleb, 90.
 Beecher, John, 90.
 Beekman, G., 27.
 Belcher, Gilbert (or Gill), 155, 157, 159, 160, 163, 164, 167, 168, 173, 198, 204.
 Belcher, Jonathan, 73.
- Bell, John, 37.
 Bell, Tom, 56.
 Bellemy (or Bellamy), John, 71.
 Bellknap, Elizabeth, 116, 117.
 Bellomont, Earl of, 6.
 Bennet, Lewis, 93, 131.
 Bennet, Lewis Benedict, 170.
 Benson, Alderman, 117.
 Benson, Robert, 78, 83, 201.
 Berry, Eleazar, 90.
 Berry, Joseph, 15, 16, 200, 202.
 Best, Humphrey, 3.
 Bickley, Attorney General, 10.
 Bill, Dr., 156.
 Bill, Joseph (or James; alias Joseph Bradford), 73-78, 200, 201.
 Birdsall, Nathan, 60.
 Blag, Alderman, 149.
 Blagge, Benjamin, 3, 191.
 Bobine, Mr., 24.
 Boelen, Alderman, 5.
 Bogert, John Jr., 113, 114.
 Bollan, Mr. Agent, 103.
 Booth, George, 12.
 Bosch, Mrs., 37.
 Boswell, Mr., 117.
 Bosworth, 59, 63.
 Bours, Peter, 88.
 Bowden, Peter, 24.
 Bowler, Metcalf, 147.
 Boyce, Joseph, 59, 63-67, 81.
 Brackett, John, 94.
 Bradford, William, 30, 31, 37, 42, 205.
 Bradford, Mrs. William, 37.
 Bradley, Richard, 23.
 Brannon (or Brennon), Charles, 191, 192.
 Bratt, Bernardus, 125.
 Bratt, Evert, 32.
 Bratt, Jacob, 32.
 Bren, Robert, 116, 117.
 Brenton, Jahleel, 43.
 Brewen, Edward, 41.

- Brewer, John, 11.
 Brewerton, George, 142, 188, 190.
 Brownell, William, 60, 62.
 Browning, William, 60, 61.
 Buckley, S., 50.
 Budd, Barnaby (or Bern), 177, 179, 181, 182, 185.
 Budd (or Bud), James, 145-148, 170, 198.
 Budd, Thomas, 184.
 Bunnell, Nathaniel, 131.
 Burcham, Samuel, 20.
 Burdsell, Samuel, 20.
 Burk, Ann, 134.
 Burrell, John, 2, 201.
 Burrows (or Burroughs), Abner, 156.
 Burrows, Samuel, 54.
 Burrows, Susannah, 123.
 Butler, Michael, 116, 117.
 Butler, Patrick (alias John Lovell, Luce, Samuel Gall, Oliver Lovewell), 39-41, 198, 203.
 Byvanck, Evert Jr., 133, 134.
 Caldcutt, Jeremiah, 12.
 Campbell, James, 118, 119.
 Campbell, Robert, 118, 119.
 Canfield, Samuel, 60, 65, 66, 201.
 Cannon, Arnout, 123.
 Carpenter, Comfort, 153.
 Cary, Capt., 103.
 Case (or Base), Wane, 155.
 Casey, Gideon, 129-133, 198.
 Casey, Samuel, 156.
 Cawley, Jno., 12.
 Cayal, John, 22.
 Chambers, John, 91, 100.
 Chandler, John, 74.
 Chase, 116.
 Chase, Benjamin, 81, 82, 87.
 Cheese, Mary, 123.
 Cheese, William, 123.
 Chetwood, William, 52, 54.
 Clarke, George, 47.
 Clarke, John, 191.
 Clarke, Mary, 123, 191.
 Clarke, Robert, 59, 62-64, 201.
 Cleveland (or Claviland), Simon, 155, 156.
 Clinton, George, 58, 59, 61-66, 68, 74.
 Clopper, Cornelius, 12.
 Clowes, Samuel, 19.
 Coddington, Wm., 43.
 Coe, Daniel, 125, 200.
 Coffee, Edward, 4.
 Cogsdale, Samuel, 99, 101.
 Colden, Dr., 20.
 Coleman, Alexander, 118.
 Conkling, Timothy, 137.
 Conner, John, 32, 33, 39, 203.
 Cooke, William, 191.
 Cooly, Richard, 113, 114, 116, 117.
 Cooper, Benjamin, 177, 179, 181-183, 185.
 Copley, Thomas, 33, 34, 39, 203.
 Cornbury, Viscount, 11.
 Cortlandt, Alderman, 22-24, 39, 83.
 Cosby, William, 34.
 Coventry, Alderman, 96.
 Cox, John, 123.
 Crook, John, 21.
 Cruger, Henry, 112.
 Cruger, John, 17, 22-25, 27, 34, 49, 57, 86, 97, 113, 114.
 Culver, Nathaniel, 154, 201.
 Cuyler, Alderman, 94, 96.
 Dally, Nicholas, 22.
 Dampler, Simon, 191.
 Dartmouth, Earl of, 150.
 David, Daniel, 162, 171.
 Davis, John (alias Joseph Daniels), 122-125, 196, 204.
 Dawkins, Henry, 193-195, 205, 206.
 Dawson, Newberry (or Greenbury), 112, 113, 116, 117.
 Day, William, 191.
 Deane, Elkanah, 135.
 Deane, William, 134.
 Deaney, Hambleton, 155.
 Desbrosses, Elias, 129.
 De Forrest, Henry, 91.
 De Lancey, James, 85, 86, 88, 89, 91, 94.
 De Lancey, Oliver, 92.
 Delivan, Timothy, 90.
 Dening, Humphrey, 155.
 DeNoyelles, John, 123.

- Denton, Justice, 98.
 DePeyster, Abraham, 30, 48, 51, 83.
 DePeyster, Isaac, 92.
 DePyser, 150.
 Depyster, William, 116, 117.
 Dexter, John, 71.
 Dickson, Gabriel, 90.
 Dickson, John, 90.
 Dillison, 112.
 Divan, John, 123.
 Doit, James (alias Hamilton), 98.
 Dote, Thomas, 71.
 Drake, Festus (or Phester), 155.
 Draper, Mr., 103.
 Du Bois, Matthew, 94.
 Dudley, Gov., 11.
 Dugdale, William, 23.
 Dumont, Catherine, 148.
 Dunmore, Gov., 185.
 Dunning, Michael, 38, 200.
 Dunston (or Dunsten), Samuel, 75-78, 200.
 Durfey, Capt., 84, 85.
 Eastham, Mr., 33.
 Eastham, Mrs., 33.
 Eastham, John, 33.
 Edward IV, 16.
 Edwards, Richard, 138, 139.
 Elliott, Susannah, 7, 199.
 Ellis, Sam, 96, 97.
 Everit, Charles, 100.
 Fanouil, Mrs., 24.
 Ferrand, Marguerite, 23.
 Filkin, Francis, 83, 107, 108.
 Finkell, John, 144, 199.
 Fippeny, Archibald, 131.
 Flud (or Flood), Samuel, 42-44, 198, 203.
 Ford, Samuel, 174, 175, 177-185, 187, 197-199.
 Forman (or Furman, Horman), Jacob, 30.
 Fowler, John, 138, 139.
 Fowler, William, 7.
 Fox, Mary, 142.
 Franklin, Walter, 172.
 Franklin, Gov., 185, 186.
 French, Alexander, 191.
 Friend, Charles, 193.
 Gaine, Hugh, 139, 194, 206.
 Galarby, Hugh, 94.
 Gallaudet, Elisha, 126, 198.
 Gara, John, 25.
 Garno, John, 142.
 Gautier, Andrew, 132, 134.
 Gill, Capt., 50.
 Gillett, Noah, 81.
 Gilliland, William, 123-125.
 Gordon, James, 192.
 Gordon, Margaret, 192.
 Goulding, Geo., 43.
 Graef, Johannes, 24.
 Granger, Phineas, 156.
 Grassett, Mr., 13.
 Greatrakes, Capt., 98.
 Green, Timothy, 126, 198, 204.
 Greswold, Matthew, 85.
 Greswold, Jerediah, 150.
 Grim, David, 191.
 Grim, Peter, 191.
 Griswold, Samuel, 89.
 Groves, Roger, 28.
 Gustine, Lemuel, 145-148, 198.
 Haines (or Haynes), Samuel, 174, 175, 177, 179, 181, 182, 185.
 Hall, Peter, 135.
 Halse, D., 24.
 Ham, Wendal, 106.
 Hamblin, Justice, 95.
 Hamilton, Charles, 98, 100, 101, 198-200.
 Hamilton, Lewis, 116, 117.
 Hamlin, Jabez, 89, 90.
 Hanford, Joseph, 142.
 Hanmer, Joseph, 4.
 Hanmer, Sarah, 4.
 Hardenbrook, Theophilus, 123.
 Hardy, Sir Charles, 90.
 Harrison, Mr., 20.
 Harrison, George, 107-109.
 Hastier, John, 42-44, 198.
 Hatfield, Abraham, 189.
 Haviland, 89.
 Hawkins, Mrs., 24.

- Haycock, 170.
 Haynes, Elias, 71.
 Haynnie, Margaret, 45, 199, 203.
 Haywood, Mr., 43.
 Hazard, Judge, 145.
 Heath, Samuell, 28, 29.
 Henderson, John, 194.
 Hendrickse, Ahasuerus, 8.
 Hepburn, 53.
 Hernon, Elizabeth, 135.
 Hickey, Thomas, 195.
 Hicks, Dennis, 124.
 Hicks, Thomas, 49.
 Hicks, Whitehead, 138, 139, 149.
 Higgins, Ichabod, 113-116, 199.
 Higgins, John (alias Blair), 111-118, 204.
 Hillsborough, Earl of, 150.
 Hix, Joseph, 81.
 Hogaboom, Col., 156.
 Hogaboom, Stephen, 156.
 Holmes, Asa, 170.
 Hopkins, Mark, 158.
 Hopkins, Tibbits, 129, 130.
 Hopson, George, 149.
 Horsmanden, Daniel, 39, 43, 72, 91, 147, 189.
 Horton, John (possible alias for John King), 187.
 Howe [Joshua], 130-132.
 Hoyt, Abraham, 23.
 Hubbard, John, 62.
 Hubble, Gersham Jr., 99, 100.
 Hubble, James, 100.
 Hubbs, Elizabeth, 189.
 Hubbs, Zephaniah, 189-190, 199.
 Hugford, Edward, 91.
 Hulbert (or Hulbard), Obediah, 159.
 Hulet, Townsend, 194.
 Humfrey, Justice, 132.
 Humphrey, 89.
 Hunt, Abner, 17.
 Hunt, Ambrose, 89.
 Hunt, Austin (or Augustine), 60-62.
 Hunt, Caleb, 22.
 Hunt, Daniel, 60-64.
 Hunt, John, 63.
 Hunt, Phineas, 142.
 Hunt, Robert, 141, 142.
 Hunter, Robert, 14, 16.
 Hurlburt, 66.
 Hurlbut (or Hulbert, or Holbert), William, 155-157, 159-161, 163, 167, 169, 171, 200, 204.
 Hutchins, John, 5.
 Hutchinson, Gov., 158, 161-164.
 Ilive, Abraham, 50, 198.
 Ingersoll, David Jr., 158.
 Isack, ye smith, 3.
 Jacobs, Cleora, 142.
 Jacobs, Cornelius, 3, 4.
 Jay, Peter, 43, 48, 49, 82, 83.
 Jenkins, Robert, 50, 198.
 Johnson, 142.
 Johnson, Catherine (or Catharine), 35-37, 123, 199, 203.
 Johnson, Elisha, 60, 61.
 Johnson, Guy, 184.
 Johnson, John, 141, 155, 192.
 Johnson, Joseph, 34-38, 198, 199.
 Johnson, Joseph Jr., 36.
 Johnson, Simon, 40, 45, 49-51, 86, 114.
 Johnson, Sir William, 152.
 Johnson, William Samuel, 150.
 Johnston, 135, 138, 144.
 Jones, Isaac, 74.
 Jones, John, 24, 139, 200, 202.
 Jones, Justice, 191.
 Jones, Lewis, 138, 139, 198.
 Jones, Nicholas Thomas, 12.
 Jubeart, John, 132-134, 198, 204.
 Kable, Thomas, 19, 20.
 Keirstead, Jacobus, 45.
 Keith, Israel, 63.
 Kelleck, Deacon, 170.
 Kempe, William, 82, 100, 137, 142, 188.
 Ketch, Jack, 92.
 Ketcham, Isaac, 137, 193-195.
 Kettletas, Garret, 37.
 Key, Nathaniel, 84-86.
 Killet, Bastian, 68-70, 198, 204.
 King, John, 175-178, 181-184, 187, 191.

- Kingston, John, 10.
 Kinney, Thomas, 176.
 Kinsey, John, 71.
 Kip, Jacobus, 21-23, 27.
 Kirby, William, 37.
 Kissam, Mr., 174.
 Kissick, Philip, 139.
 Knap, Jeremiah, 125.

 Law, Jonathan, 58, 59, 65, 66, 68, 71.
 Leary, James, 123.
 Lett, Lewis, 156.
 Lewis, Archilaus (or Achelles), 111, 113, 114, 116, 117, 196.
 Lewis, Daniel, 156, 169-171, 199.
 Lewis, Ethan, 167, 200.
 Lewis, Polly, 169, 199.
 Liddle, John, 25.
 Livingston, 120.
 Livingston, Alderman, 94.
 Livingston, Archibald, 118, 119.
 Livingston, James, 28, 100.
 Livingston, J. 113.
 Livingston, John, 92.
 Livingston, Mary, 28.
 Livingston, Phil., 113.
 Livingston, Robert, 158, 167.
 Livingston, Robert Jr., 83, 84.
 Livingston, R. G., 129.
 Lockhart, John, 148, 149.
 Lott, Abraham, 150.
 Lott, Levi, 194.
 Lovely, John Wall, 155-157, 159, 160, 163, 167, 168, 170, 173, 204.
 Ludlow, Gabriel, 4-6.
 Ludlow, Justice, 189, 191.
 Luff, Gabriel, 24, 201.
 Lummis, John, 73.
 Lurting, George, 38.
 Lurting, Robert, 38.
 Lynch, Ann, 135.
 Lynch, Michael, 195.
 Lynch, Peter, 134, 135.
 Lynstead, Thomas, 18-21, 200, 201.
 Lyon, Nehemiah, 91.

 Mc Avy, Catharine, 149.
 Mc Bride, James, 78, 79.
 Mc Creedy, Dennis, 123.

 Mc Daniel, Matthew, 134.
 Mc Dermot, Jane, 33.
 Mc Kenen, Sarah, 86.
 Mc Kindley, Daniel, 138, 139.
 Mc Lannen, John, 12.
 Mc Niel, Arthur, 150.

 Mace, Jacob, 81, 82, 87, 89.
 Maeslyes, Richard, 96.
 Mallet, John, 131.
 Mames, Samuel, 45.
 Mann, Edward, 37.
 Mark, James, 15, 16, 198, 200, 202.
 Markel, jne, 116, 117.
 Marshall, John, 51, 57.
 Marshall, Susannah, 133, 134.
 Martin, Thomas, 124.
 Martling, Barent, 118.
 Maser, Jacob, 70, 204.
 Mayor, Thomas, 22.
 Meigs, Felix, 148-150, 200, 205.
 Meigs, Jediah, 150.
 Mense, Isaac, 23.
 Mesier, Peter, 113, 114.
 Miller, Abraham Jr., 188.
 Miller Ichabod, 161, 162, 171.
 Miller, Jonathan, 91.
 Mills, Abraham, 57, 78, 201.
 Mitchell, Peter, 24.
 Montagne, Mr., 5.
 Montanije (or Montaine), Vincent, 148, 149.
 Moore, George Joseph, 56.
 Moore, John, 43, 49, 51.
 Moore, Patrick (alias Plunket), 97, 98.
 Moore, Peter, 68-70, 204.
 Moore, Thomas, 134.
 More, Isaak, 21, 22.
 Morehouse, Elisha, 89.
 Morgan, Abigail, 188.
 Morgan, Caleb, 188.
 Morison, Justice, 153.
 Morough, Thomas, 26, 27.
 Morris, Fred, 29, 39.
 Morris, Gov., 58.
 Morris, Joseph, 177.
 Morris, Richard, 160, 167.
 Morris, Robert Hunter, 54.
 Mott, John, 123.

- Mount, Samuel, 141, 142.
Munro, John, 152, 153, 199-201.
Myer, Mr., 24.
- Neffser, Jacob, 191.
Nelson, Andrew, 58.
New, Richard, 86.
Newman, William, 123.
Nicholls, George, 28, 29.
North, Robert, 54.
Northrup, Joseph, 86.
Noxon, Bartholomew, 94, 99, 100, 201.
- O'Bryan, John, 123.
Odell, Thomas, 11, 12, 199.
Onclebagg, Garrett, 8, 9, 198, 201.
Osburn, William, 23.
Outhout, John, 148.
- Parker, Elisha, 54.
Parker, James, 139.
Parker, John, 28.
Parker (or Packer), Joseph Bills (or Joseph Bill), 154-157, 159, 163, 167-169, 173, 198, 199, 204.
Peartree, William, 12.
Peiser, Henry, 139.
Peiser, Peter, 138, 139.
Pell, John, 188.
Phagan, Patrick, 69.
Phillipse, Alderman, 22, 24.
Pierce, Daniel, 52, 53.
Pierce, Sarah, 52, 53.
Pierce, Silas, 52, 53.
Pintard, John, 49-51, 57.
Pitkin, William, 192.
Plantaine, John, 123.
Plough, William, 22.
Plumbe, Samuel, 137.
Plummer, Joseph, 60, 61, 63.
Ponsonby, William, 24.
Porter, Seth, 131.
Potter, Nodiah, 53.
Potts, Peter, 61.
Provoost, D., 27.
Pullen, Thomas, 20.
- Quereau, Benjamin, 148.
Quigley, Daniel, 23.
- Quirk, Tunis, 23.
- Randall, Thomas, 142.
Reddon (or Redmon), 175.
Reynolds, David, 177, 179, 181-183.
Rhineland, Philip, 148, 149.
Rhineland, William, 150.
Rice, Abraham, 135.
Rice, Catherine, 139.
Richard, Paul, 40, 43, 49, 83, 84.
Richardson, Joseph, 177, 178, 180, 182-185, 187.
Rind, 185.
Rivington, James, 177, 194.
Roberts, Thomas, 12, 202.
Robinson, Edmund, 71.
Robison, Silas, 155.
Rolf, Nathaniel, 53.
Rood, Abijah, 171, 172.
Rood, Joshua, 162, 171, 172.
Rooley, Daniel, 190.
Roome, William, 40, 43, 50.
Roosvell, Ja., 45.
Root, Jesse, 192.
Rosecrans (or Rosencrantz), Harman (or Herman), 182.
Rosevelt, Jacobus, 116, 117.
Rows, Caspar, 95.
Ruckle, Jasper, 188.
Rusco, Mr., 112.
Rush, John, 3, 4.
Russell, William, 60, 61.
Rutter, Arabela (or Arabella), 148, 149.
Rutter, John, 148, 149.
Ryan, John, 68-70, 98, 99, 204.
Ryker, Jane, 149.
Ryker, Peter, 149.
- Saltonstall, G., 84, 86.
Samson, Samuel (possible alias for Samuel Ford), 187.
Sanders, Robert, 12.
Sanford, David, 91.
Savage, James, 154, 201.
Schermerhoorn, Mr., 24.
Schuyler, Col., 173.
Schuyler, Brandt, 70.
Schuyler, Dirik, 134.
Schuyler, Peter, 82.

- Scious (or Scias, or Syas), John, 59, 63, 64, 67.
 Scott, Mr., 183.
 Searles, John, 153.
 Seely, Ephraim, 65.
 Selleck, Jonathan, 3.
 Serjeant, Mrs., 32.
 Seymour, Thomas, 192.
 Sharpe, Jacob, 193.
 Sharper, Mr., 24, 28.
 Shearman, Samuel, 81.
 Sheldon, Thomas, 94.
 Shennancup, Mr., 24.
 Shermer, Samuel, 71.
 Sherrard, 19, 20.
 Sherwood, Moses, 123, 124.
 Shirley, William, 58, 59, 62, 63, 65, 71, 74.
 Shore, William, 2, 201.
 Shourt, Jacob, 148, 149.
 Shourt, Susannah, 149.
 Skinner, Capt., 117.
 Skinner, Stephen, 135, 137, 144, 183, 192.
 Sleght, Mathias, 106.
 Smith, 135, 137, 144.
 Smith, Abijah, 156.
 Smith, Dr., 156.
 Smith, Elnathan, 60-62.
 Smith, John, 142, 143, 155, 157, 159, 160, 170.
 Smith, John Peterse, 118, 119.
 Smith, Michael, 121-125.
 Smith, Obediah, 38, 200.
 Smith, Richard, 141, 192.
 Smith, S., 141.
 Smith, Th., 156.
 Smith, Thomas, 188.
 Smith, William, 163.
 Smith, William Jr., 129.
 Smith, William Hooker, 145, 146, 148, 196.
 Snyder, Hans Peter, 95.
 Soule, George, 60, 61.
 Soule, Justice, 94.
 Southworth, Samuel, 82.
 Spence (or Spencer), Israel, 162, 171.
 Springhall, Gregory, 139.
 Squire, Ichabod, 171.
 Stag, John, 142.
 Standley, John, 155.
 Stannard, John, 155.
 Starr, Daniel, 90.
 Starr, Josiah, 90.
 Steel, Joseph, 42-44, 198.
 Steel, Thomas, 22.
 Steele, Isaac, 53.
 Stevens, John, 52-56, 201, 203.
 Stevens, Samuel, 188.
 Stevens, William, 132.
 Still (or Hill), Martin, 138, 139.
 Stone, Andrew, 50.
 Sturges, 131.
 Stuyvesant, Gerardus, 43.
 Sullivan, Daniel, 116, 117.
 Sullivan, Owen (alias James Shiffel, Benjamin Parlon, John Pierson, Johnson, John Livingston, John Brown), 81, 82, 87-94, 196, 198, 201, 204.
 Sutton, James, 156.
 Swartwout, Jacobus, 61, 62, 64, 65.
 Tappan, Jurian, 21, 22.
 Taylor, William, 86, 107.
 Tellar, Isaac, 113.
 Ter Bos, Henry, 95.
 Ter Bos, Jacobus, 94.
 Thomas, John, 90.
 Thomas, Richard, 7.
 Thomas, Sophia, 9, 199.
 Thompson, 142.
 Thompson, Howkiah, 90.
 Thompson, Samuel, 63.
 Thorn, William, 191.
 Towers, Joseph, 123, 139.
 Trumbull, Gov., 150.
 Tryon, Gov., 150, 152, 153, 158, 161-163.
 Tudor, John, 12.
 Turck, Augustinus, 95.
 Tuttle, J. F., 187.
 Tyas, John, 87.
 Ulrick, Catherine, 142.
 Ulrick, George, 142.
 Updike, Daniel, 43.

- Van Cleek, Leonard, 95.
 Van Cortlandt, August, 86.
 Van Cortlandt, Jacobus, 17.
 Van Derhoope, John, 86.
 Vanderspeigle, John, 134.
 Vanderspiegel, Anna, 10, 199.
 Van Gelder, Abraham, 142, 148.
 Vanheusen, John, 86.
 Vanhooke, Lawrence, 8.
 Van Horne, 120.
 Vanhorne, Abraham, 32.
 Vanhorne, Cornelius, 83, 84.
 Vanhorne, James, 32.
 Vanhorne, John, 32, 129.
 Vank, Bartholomew, 12, 202.
 Van Kleek, Baltus, 99.
 Van Kleek, Lawrence, 95, 98, 99.
 Van Kueren, Mary, 116, 117.
 Van Schaak, H., 162.
 Van Voorhees, Garrit, 45, 47, 48, 196, 199.
 Van Witch, Christophel, 142.
 Van Witch, Margaret, 142.
 Van Zandt, John, 48.
 Vernon, Mr., 24.
 Verplank, Samuel, 172.
 Verry, Joseph, 63.
 Viele, Elizabeth, 23.
 Walker, Robert, 21, 22, 24.
 Walker, Samuel, 52, 53.
 Wallace, David, 15, 26-30, 196, 202.
 Walles, William, 49.
 Walter, Capt., 20.
 Wanton, Gideon, 66.
 Wanton, John, 43.
 Ward, 142.
 Washington, George, 195.
 Watson, Joshua, 139.
 Watson, Peter, 15.
 Weeks, Thomas, 194.
 Weght, George, 191.
 Welch, Thomas, 123.
 Wells, 94.
 Welsh, Edward, 188.
 Wenman, Thomas, 32.
 Wentwood, Benjamin, 21, 22.
 Weyman, William, 205.
 White, Benons, 11.
 White, George, 144.
 White, Peregrine, 11.
 White, Thomas, 138, 139.
 Whitehead, Joseph, 116, 117.
 Whiting, William B., 154, 155, 159, 170, 201.
 Whitney, Joshua, 162, 171.
 Willard, J., 103.
 Willcocks, Daniel (alias Chase), 129.
 King William (of England), 106, 108, 109.
 Williams, Elijah, 154, 201.
 Williams, Ezekiel, 143.
 Williams, Jack, 156.
 Williams, Roger, 1.
 Williams, Sheriff, 157, 162.
 Williams, Thomas, 190.
 Williamson, John, 155.
 Wills, 146.
 Willson, David, 15, 26-30, 202.
 Willson, Ebenezer, 12.
 Wing, Abraham, 60, 61.
 Winter, Isaac, 79.
 Wolcott, John, 67.
 Wolcott, Roger, 85.
 Wonham, Mr., 5.
 Wood, Stephen, 82.
 Woodbridge, Timothy, 157, 158, 161, 162, 171.
 Woodman, Jonathan, 75-78, 200, 201.
 Wool, Jeremiah, 194.
 Wright, Deborah, 19.
 Wright, James, 12.
 Wynantz, John, 53, 54.
 Yelverton, Anthony, 99.
 Young, Isaac, 193-195, 205.
 Young, Israel, 193-195, 205.
 Young, John, 124.
 Younglove, 156.
 Zenger, Mr., 33.
 Zenger, Mrs. 32.
 Zenger, John Peter, 205.

GEOGRAPHICAL INDEX

- Albany, 18, 45, 61, 69, 152, 153, 155, 159, 160, 166-168, 171, 190, 196.
 Albany County, 152-154, 157-159, 161, 162, 165, 167, 171, 173, 188, 199, 201.
 Alexandria, 116.
 Amboy, 114, 177, 182, 183.
 America, 30, 94, 130, 194.
 Andover, 43.
 Annaquauga, 181.
 Arlington, 153.
 Ashford, 96.
 Ash Swamp, 53, 55.
 Baltimore, 185.
 Beekman(s) precinct, 98, 99.
 Bergen County, 73.
 Berkshire County, 157, 158, 161-164, 167, 171.
 Bermuda, 68, 69.
 Bever St., 12.
 Birmingham, 103.
 Bordentown, 114.
 Boston, 2, 3, 11, 15, 16, 18, 69, 74, 78, 87, 95, 98, 103, 130, 133, 154, 166, 170, 176, 183, 198.
 British Dominions, 130.
 Broadway, 12.
 Brunswick, 69.
 Cage, the, 12.
 Castle Cary, 4.
 Charlestown, 56.
 City (or Town) Hall in N.Y.C., 12, 36, 38, 40, 43, 117, 123, 135, 174, 195.
 Cohass (or Cowas), 131, 153.
 Cold Spring, 193, 194.
 Connecticut, 30, 40, 43, 58, 60, 64-66, 68, 71, 74, 85, 87, 88, 90-93, 96, 97, 99, 100, 129, 130, 143, 145, 146, 150, 156, 157, 190, 192-194, 201.
 Connecticut River, 158, 165.
 Cornwell, 99.
 Croton's River, 145.
 Derham, 63.
 Dock Ward, 116, 148.
 Dover, 74, 88, 89.
 Dublin, 26, 27, 45.
 Dutchess County, 59-61, 64, 71, 81, 82, 87-91, 94-96, 98, 100, 113, 129, 132, 133, 140, 144, 145, 147, 167, 199, 201.
 Eastchester, 188.
 East Guilford, 150.
 East Jersey, 4, 54, 55, 181, 182.
 East River, 194.
 East Ward, 10, 141, 142, 191.
 Elizabethtown, 4, 24.
 Elk River, 26.
 Enfield, 159.
 England, 4, 7, 10, 21, 121, 123, 160, 166, 170, 176, 194, 198, 206.
 Essex County, 63.
 Fairfield, 92, 93, 99, 100, 129-131, 142, 170.
 Fish Kills, 96, 133.
 Flatbush, 29.
 Fort Augusta, 176, 181.
 Fort James, 2.
 Fowlis, 152.
 Fresh-Water, 116.
 Germany, 75.
 Goshen, 12, 38, 70, 98, 125, 156.
 Great-Barrington, 158, 169, 170.
 Great Valley, 185.
 Greenwich, 71.
 Hackinsack, 24.
 Halifax, 176.
 Hampshire, 170.
 Hanover, 174, 175.
 Hartford, 143, 157.

- Haverhill, 77.
 Haverstraw, 38.
 Hempstead, 18.
 Highlands, the, 43.
 Holland, 21.
 House of Correction, 45, 203.
 Hudson ('s) River, 90, 163-165.
 Huntington, 137, 194, 195.

 Ireland, 45, 47, 175, 176, 178, 182, 184, 196.
 Isle of Wight, 170.

 Jamaica, 3, 4, 29, 30, 49.
 Juniata, 184.

 Kinderhook, 162.
 Kings County, 29, 156, 202, 203.
 King's District, 154.
 Kingston, 21, 49.

 Lancaster County, 185, 187.
 Leedes Town, 197.
 Litchfield, 195.
 Little Rest, 156.
 London, 102, 103, 178, 194.
 Long Island, 18, 19, 24, 137, 193, 194.
 Louisburg, 87.

 Mackerel Cove, 145.
 Manhattan, 29.
 Maplewood, 71.
 Market Place at Burghers path, 12.
 Maryland, 15, 26, 27, 113, 175, 180.
 Massachusetts, 1, 2, 11, 12, 43, 44, 62, 63, 67, 71, 74, 156, 157, 159, 161-167, 171, 172, 193, 197, 200, 201.
 Middlesex County, 186.
 Middletown, 43, 44.
 Mississippi, 180, 184.
 Monmouth County, 120, 186.
 Montgomery (or Montgomerie) Ward, 138, 148.
 Morris County, 71, 174-177, 182, 186.
 Morristown, 174, 175, 181, 182, 184, 187.

 Nantucket, 145.

 Narraganset, 73, 75, 76.
 New Bern, 97.
 New Castle, 39, 50.
 New England, 27, 30, 40, 43, 44, 61, 77, 91, 129, 133, 152, 166, 200.
 Newfoundland, 170.
 New Hampshire, 42, 63, 76, 77, 89, 92, 131, 153, 196, 197.
 New Haven, 66, 71, 87-90, 131.
 New Haven County, 60.
 New highlands, 113.
 New Jersey, 2, 9, 26, 27, 29, 30, 32, 35, 36, 49-52, 56, 63, 64, 71-73, 76, 79, 98, 110-115, 118-124, 126, 127, 134, 135, 138, 139, 141-147, 151, 153, 154, 169, 174-178, 180-185, 196, 197, 202, 204.
 New London, 68, 69, 73, 84, 86.
 New Milford, 60.
 New Netherland, 1.
 New-Orleans, 184.
 Newport, 12, 43, 88, 145, 147, 156, 198.
 New Sherburn, 63.
 New York (City), 1-4, 7-9, 12, 13, 15-18, 20-22, 25-27, 29, 30, 33, 35, 36, 38-42, 44, 45, 50-52, 60, 69-72, 79, 81, 86, 90, 94-98, 100, 102, 103, 105-108, 110, 111, 114-116, 118-121, 123, 124, 126-128, 131, 132, 134, 135, 137-139, 141, 145, 148, 151, 174, 176, 177, 183, 184, 189-192, 194-197, 200-203, 205.
 New York (County), 20, 25, 42, 202, 203.
 New York (Province), 1, 2, 4-7, 9-11, 17, 18, 21, 23, 27, 30, 38, 40, 49, 50, 53, 54, 56, 58, 59, 66, 68, 72, 74-77, 84, 85, 87-92, 96, 97, 102, 110, 111, 113-116, 119, 120, 123, 125, 127-132, 140, 142-151, 154, 155, 157, 160, 162-166, 169-172, 175, 180, 182, 188, 190, 193, 196, 197, 199-206.
 New York (State), 195.
 North Barrington, 188.
 North Carolina, 97, 126, 130, 132, 133, 169, 196.
 North River, 130.
 North Ward, 139, 192.

- Oblong, 58–60, 62, 65, 66, 68, 81, 87, 88, 156, 201.
 Ohio, 180, 184, 185.
 Old Slip-Market, 133.
 Orange County, 12, 38, 69, 79, 98, 119, 123, 125, 196, 200, 204.
 Orange Town, 118, 125.
 Oyster Bay, 19, 20.
- Pall-Mall, 103.
 Passaic River, 53.
 Paulin's Kill, 98.
 Pearl St., 12.
 Peek's Kill, 71, 124.
 Pennsylvania, 3, 4, 11, 16, 27, 35, 74, 75, 115, 151, 169, 175–180, 182, 184, 185, 187, 191, 192.
 Perth Amboy, 181.
 Philadelphia, 3, 4, 15, 17, 26, 35, 36, 50, 56, 70, 71, 75, 106, 107, 114–116, 120, 121, 135, 139, 144, 176, 182–184.
 Pine's Bridge, 145.
 Piscataway, 53.
 Pittsfield, 147, 170, 171.
 Portsmouth, 77.
 Portugal, 170.
 Potomac, 197.
 Poughkeepsie, 64, 81, 82, 89, 98, 99, 101, 140.
 Providence, 146, 148, 156, 190.
- Queen St., 4.
 Queens County, 19, 20, 29, 30, 49, 193, 202, 203.
- Reading, 170.
 Rhode Island, 1, 8, 12, 15, 18, 42–44, 58–61, 63, 64, 66, 81, 82, 87–89, 92, 94, 129, 147, 148, 156, 190, 196.
 Roxbury, 87.
- Salem, 50, 59, 63, 67.
- Schoolkill, 36.
 Second-River, 76.
 Shafsbury, 153.
 Sheffield, 156–158, 167, 170, 171.
 Somerset, 4.
 Southwark, 50.
 Springfield, 43.
 Staten Island, 32, 132, 133.
 Stockbridge, 133, 157, 162, 171.
 Stonefence, 134.
 Stratford, 98.
 Suffield, 143, 157, 159.
 Suffolk County, 63, 70, 137.
 Susquehanna(h), 180, 181, 184.
 Sussex County, 179, 186.
- Tappan Goal, 123.
 Trinity Church, 4–6, 201.
- Ulster County, 21, 49.
 Uxbridge, 63.
- Virginia, 36, 116, 169, 183, 185, 197.
- Wall St., 12.
 Washington, D.C., 123.
 Watertown, 74.
 Weathersfield, 77.
 Westbury, 193.
 Westchester, 17, 23, 29, 40, 41, 100.
 Westchester County, 124, 188, 189, 202, 203.
 West Indies, 184.
 West Jersey, 4.
 Weston, 74.
 West Ward, 123, 191.
 White-hall, 114, 149.
 white Hall Kip, 113.
 White Plains, 154, 189, 195, 199.
 Windham, 96.
 Wioming, 176.
 Woodbridge, 136.

PLATES

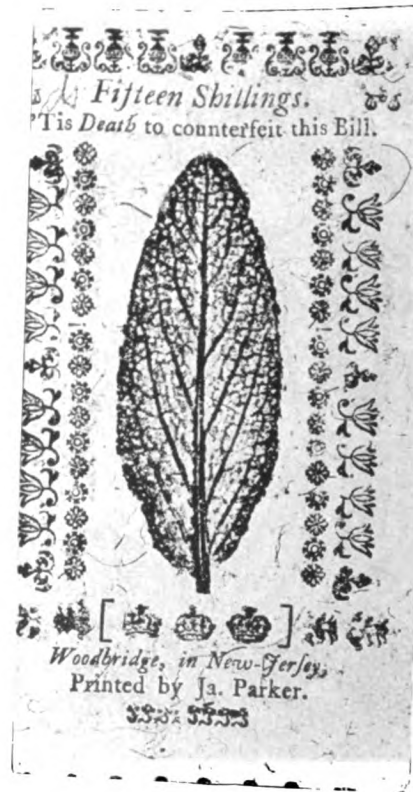
1,



GENUINE NEW JERSEY TWELVE SHILLING NOTE
(J. N. SPIRO COLL.)



COUNTERFEIT NEW JERSEY TWELVE SHILLING NOTE
(J. N. SPIRO COLL.)

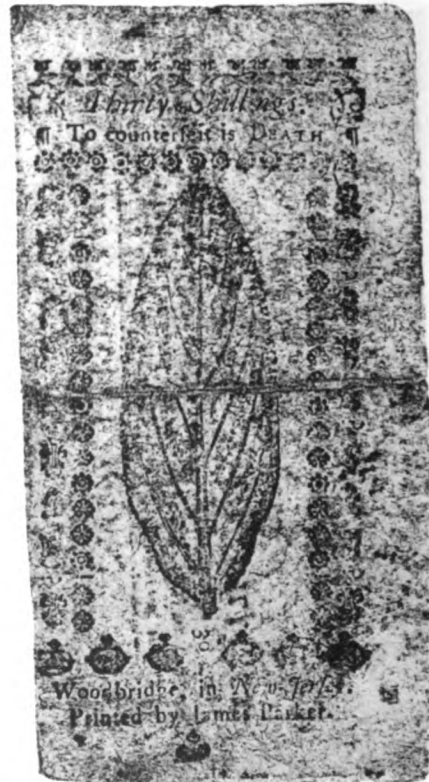


GENUINE NEW JERSEY FIFTEEN SHILLING NOTE
(J. N. SPIRO COLL.)



COUNTERFEIT NEW JERSEY FIFTEEN SHILLING NOTE
(J. N. SPIRO COLL.)

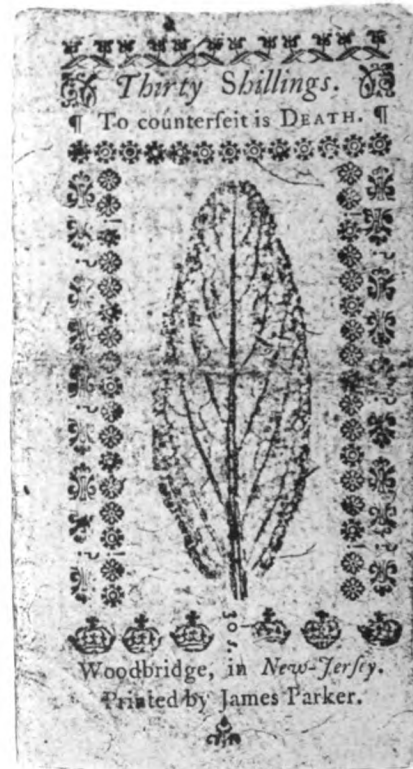
v



GENUINE NEW JERSEY THIRTY SHILLING NOTE
(J. N. SPIRO COLL.)



GENUINE NEW JERSEY THIRTY SHILLING NOTE
(J. N. SPIRO COLL.)

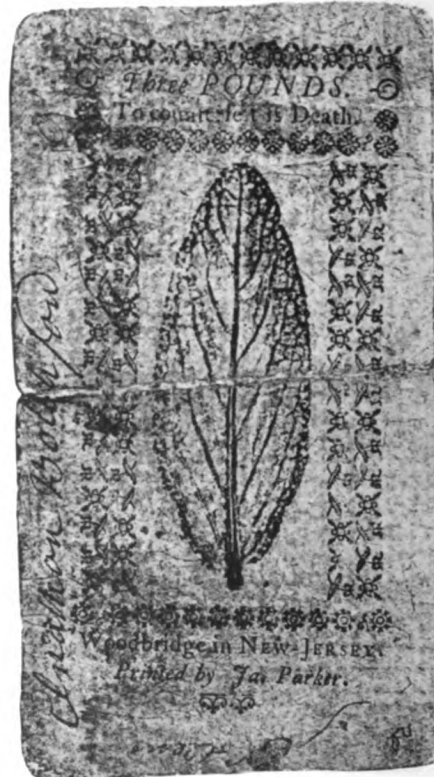


COUNTERFEIT NEW JERSEY THIRTY SHILLING NOTE
(J. N. SPIRO COLL.)



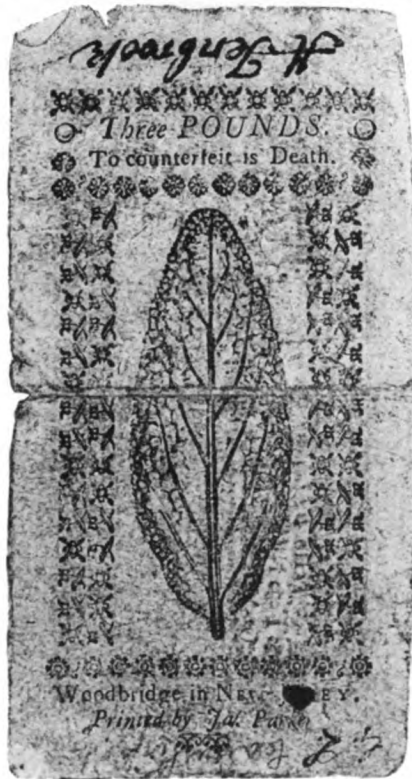
COUNTERFEIT NEW JERSEY THIRTY SHILLING NOTE
(J. N. SPIRO COLL.)

IX



GENUINE NEW JERSEY THREE POUND NOTE
(J. N. SPIRO COLL.)

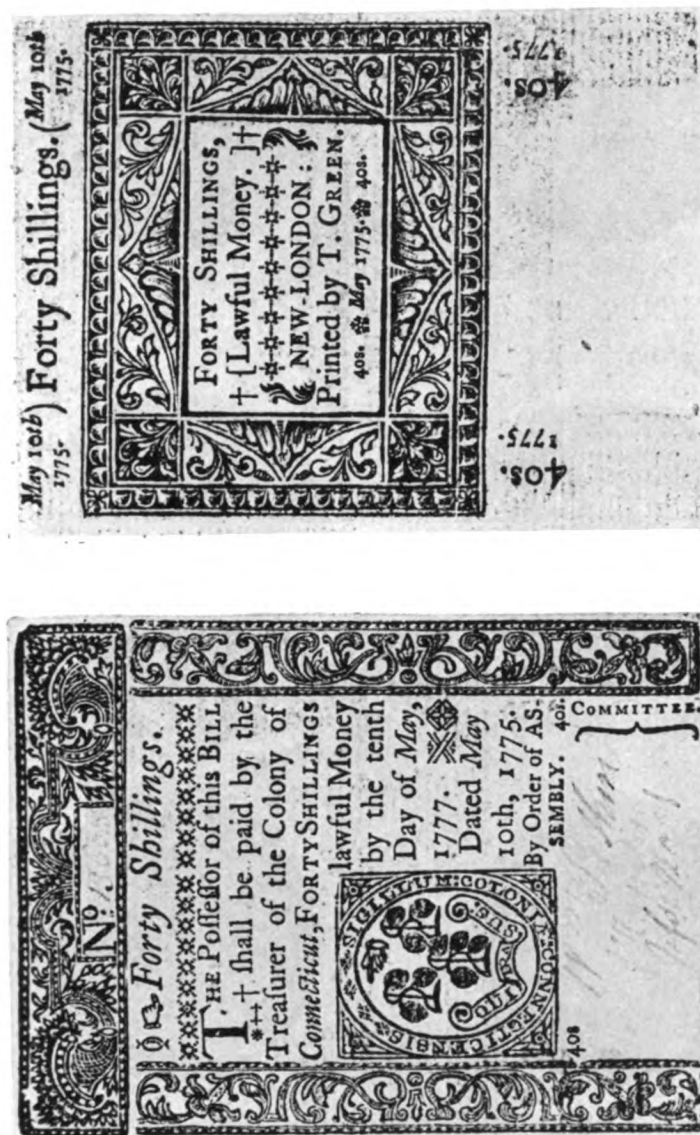
X



COUNTERFEIT NEW JERSEY THREE POUND NOTE
(J. N. SPIRO COLL.)



GENUINE NEW YORK THREE POUND NOTE
(WAYTE RAYMOND COLL.)



GENUINE CONNECTICUT FORTY SHILLING NOTE
(WAYTE RAYMOND COLL.)

XIII



1



2



3

GENUINE SPANISH PIECES-OF-EIGHT

et.
NUMISMATIC NOTES AND MONOGRAPHS

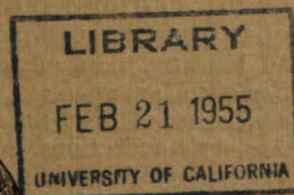
No. 128

THE VENETIAN GOLD DUCAT AND ITS IMITATIONS

By HERBERT E. IVES

Edited and Annotated

By PHILIP GRIERSON



THE AMERICAN NUMISMATIC SOCIETY

BROADWAY AT 156TH STREET, NEW YORK

1954

THE AMERICAN NUMISMATIC SOCIETY

Founded 1858 – Incorporated 1865

BROADWAY BETWEEN 155TH & 156TH STREETS
NEW YORK 32, N. Y.

PURPOSES: The Society was founded for the collection and preservation of coins and medals and for the investigation of their history and other subjects connected therewith.

MEMBERSHIP: Applications for membership are welcomed from all interested in numismatics. Inquiries regarding membership should be addressed to the Secretary of the Society.

DUES: The annual dues for an Associate Membership are \$7.50. Issues of the *Notes and Monographs*, *Museum Notes*, *Hispanic Numismatic Series*, and *Numismatic Literature* are distributed to all members.

PUBLICATIONS: The *Numismatic Notes and Monographs* consist of separately issued papers, each on a single topic, of which two to four numbers appear each year. *The American Numismatic Society Museum Notes* is a publication, irregular in appearance, consisting of brief notes and papers, principally on items in the Society's collections. *Numismatic Literature* is a quarterly listing current numismatic publications with abstracts of their content. *Numismatic Studies* is a series which accommodates works of full book length. The *Hispanic Numismatic Series*, published in co-operation with the Hispanic Society of America, consists of publications devoted to the coinage of the Iberian Peninsula, and is based on the collections of the Hispanic Society.

MUSEUM: The Society maintains a museum located in uptown Manhattan, New York City, which houses its offices, collections and library. Collections embrace coins of all periods from their inception to modern times, medals and decorations. Selections from its cabinets are on display in an exhibition. The library, consisting of about 12,000 volumes, covers all branches of numismatics.

The Museum is open to Members and the public on Tuesdays, Wednesdays, Thursdays, Fridays and Saturdays. It is closed on Sundays and Mondays and the following holidays: New Year's Day, Lincoln's Birthday, Washington's Birthday, Memorial Day, Independence Day, Election Day, Thanksgiving Day and Christmas Day. The hours of the Library are from 9 A.M. to 5 P.M. The public exhibition is open from 2 to 5 P.M.

NUMISMATIC NOTES AND MONOGRAPHS

Number 128

NUMISMATIC NOTES AND MONOGRAPHS
is devoted to essays and treatises on subjects relating
to coins, paper money, medals and decorations.

PUBLICATION COMMITTEE

A. CARSON SIMPSON, *Chairman*

ALFRED R. BELLINGER

AGNES BALDWIN BRETT

THOMAS O. MABBOTT

THEODOR E. MOMMSEN

SAWYER MCA. MOSSER, *Editor*

The Venetian Gold Ducat And Its Imitations

By HERBERT E. IVES

Edited and Annotated

By PHILIP GRIERSON



THE AMERICAN NUMISMATIC SOCIETY

BROADWAY AT 156TH STREET

NEW YORK

1954

**ALL RIGHTS RESERVED BY
THE AMERICAN NUMISMATIC SOCIETY**

**PRINTED IN GERMANY
AT J. J. AUGUSTIN · GLÜCKSTADT**

CONTENTS

FOREWORD	vii
INTRODUCTION	I
I. THE DESIGN OF THE VENETIAN DUCAT, 1284— <i>c.</i> 1840	5
II. DUCATS OF THE ROMAN SENATE	9
III. OTHER WESTERN EUROPEAN IMITATIONS	13
IV. DUCATS OF THE KNIGHTS OF ST. JOHN OF JERUSALEM AT RHODES AND MALTA.....	18
V. OTHER EASTERN MEDITERRANEAN IMITATIONS	22
VI. ANONYMOUS LEVANTINE IMITATIONS	25
VII. INDIAN IMITATIONS	29
VIII. GILT COPPER DUCAT TOKENS	32
IX. DIES FOR IMITATION DUCATS	33
KEY TO THE PLATES.....	35

FOREWORD

This is the third and unhappily the last of Dr. Ives' contributions to the literature of numismatics. His previous publications were a monograph on imitations of the English noble, published in 1941 as No. 93 in *Numismatic Notes and Monographs*, and an article contributed to *Museum Notes* in 1952 on the design of the Florentine florin as an aid to its dating. His main interest was that branch of comparative numismatics which involves the study of the spread and imitation of important commercial currencies, and his strength as a scholar lay in his talent for observing and analyzing the incidence of small details of design which could be used as evidence for classification and dating. It was only a short step from the florin to the ducat, and he had virtually completed the sketch for this monograph when he died suddenly on 13 November 1953.

In the previous summer, on the eve of his last visit to Europe, Dr. Ives asked me to read his rough draft and discuss it with him. Since he was one of the most modest of scholars, he always assumed that others were likely to know more about a subject than he did himself. The book seemed to me to fulfil very adequately the purposes he had in mind, and beyond urging that certain sections required expansion, I had not many suggestions to make.

Dr. Ives returned from Europe with some fresh material, but had scarcely begun the revision of the text and notes for the printer before he died. I was asked by The American Numismatic Society to complete the work, and was only too happy to perform this service to the memory of a distinguished collector and scholar. I first met Dr. Ives when he

was visiting England in 1951. We subsequently corresponded on problems of later medieval coinage, and he showed me every kindness when I was in New York for the first time in 1953.

The manuscript of the book, in the form in which it reached me, consisted of the text as I had originally seen it, accompanied by rather sketchy notes and partially mounted plates. Full indications were available as to how Dr. Ives intended to complete the latter.

The text as printed here is basically as Dr. Ives left it, but I have systematized the spelling of proper names, checked the dates and cross-references, and added sections on points which I had discussed with him and on which I knew he intended to work. I have not called attention to small changes I have made in his wording, whether for literary reasons or in correcting trivial errors of fact, but I have put all substantial additions of my own in brackets. This does not apply to the footnotes, which are almost entirely my work, since I had only rough jottings regarding his chief authorities and few references in detail. The general plan of the plates is that devised by Dr. Ives, but some have had to be slightly adjusted either to include additional material or to utilize more satisfactorily the space available.

The majority of the coins illustrated formed part of Dr. Ives' own splendid collection and are now in the possession of The American Numismatic Society. I am indebted to the keepers of the coins in the British Museum and the Ashmolean Museum for permission to publish several specimens in their respective collections, and to Sig. Tommaso Bertelè for sending me a photograph and description of a coin die in his possession and giving me permission to include it here.

NEW YORK, 17 AUGUST 1954.

PHILIP GRIERSON

INTRODUCTION

In the second half of the thirteenth century two important gold coins were introduced in Italy, the florin of Florence (1252) and the ducat or zecchino of Venice (1284). Of virtually the same size and value, and of high purity, these coins were issued, with little change in design, for a period of several centuries: in the case of the florin, up to 1533, after the institution of Alessandro de Medici as first Grand Duke of Tuscany; in the case of the ducat, up to the suppression of the Venetian Republic by the Treaty of Campo Formio in 1797 and even beyond, into the nineteenth century. Both had a wide circulation¹ and were extensively imitated, but the imitations followed a somewhat different course in the two cases.

The florins of Florence were copied almost exclusively in western Europe: in Germany, the Low Countries, France and Aragon, where over a hundred rulers, states, and cities issued florins bearing the lily for obverse, and St. John the Baptist as reverse, with the FLORENTIA of the original replaced by FRANCIA, FLAD, or other identifying place or ruler's name. These florin imitations flourished in the fourteenth century, but had practically ceased by 1400 except in Aragon, where they persisted well into the fifteenth century. The goldgulden, derived from the florin, lasted longer, but with the lily and St. John superseded by other types. The

¹ Cf. Josef Muller, "Venezianer Münzen im XIII. Jahrhunderte und ihr Einfluss auf das mitteleuropäische Münzwesen," *Numismatische Zeitschrift*, XV (1883), 222-37, and the article of Dieudonné cited below, p. 4, n. 10.

florin imitations have been very fully listed and described by Dannenberg,² Joseph,³ and others.

The imitations of the Venetian ducat, in contrast to those of the florin, were produced almost entirely in regions south and east of Venice:⁴ in the eastern Mediterranean, the Levant, and out as far as India. Unlike the florin imitations they were not a phenomenon of a few decades, but continued during the whole period of the ducat, that is, up until the nineteenth century. It is the purpose of this essay to give an account of the spread of these ducat imitations, which it has heretofore been possible to comprehend only by consulting widely scattered sources.

[It must be remembered that imitations of the ducat throw light on only one aspect of its influence. The weight and intrinsic quality of the coin were as important as its external appearance, and the manner in which it was taken as a model by rulers who in the fifteenth century were reforming or creating a gold coinage is most revealing. This was equally true of the Christian west and the Muslim east. Afonso V of Portugal, establishing in 1457 the new cruzado

² Hermann Dannenberg, "Die Goldgulden vom Florentiner Gepräge," *NZ*, XII (1880), 146-85.

³ Paul Joseph, *Historisch-kritische Beschreibung des Bretzenheimer Goldguldenfundes (vergraben um 1390): nebst einem Verzeichniss der bisher bekannten Goldgulden vom Florentiner Gepräge* (Mainz, 1883). This article first appeared in vol. III of the *Zeitschrift des Vereins zur Erforschung der rheinischen Geschichte und Altertümer zu Mainz*. The most convenient listing of florin imitations is that in Arthur Engel and Raymond Serrure, *Traité de numismatique du moyen âge*, III (Paris, 1905), 1437-40.

⁴ The relatively small circulation of the Venetian ducat in northern Europe is reflected in the composition of the Bretzenheim hoard. Of the 1005 coins it contained, 451 were Florentine florins, 549 were florin imitations or derivatives, and only 5 were Venetian ducats. In contrast to this, see the account of the board of Puerto de Santa Maria at Cadiz by F. Mateu y Llopis, "El ducado, unidad monetaria internacional oro durante el siglo XV, y su aparacion en la peninsula Iberica," *Anuario del Cuerpo Facultativo de Archiveros, Bibliothecarios y Arqueologicos*, II (1934), 1-34.

with the guinea gold which Portuguese exploration of the coast of west Africa was for the first time bringing to his kingdom, made this coin of the weight and fineness of the ducat,⁵ and Ferdinand and Isabella, in carrying out their great monetary reform by the Pragmatic of Medina del Campo of 13 June 1497, took the value of the ducat as that which their excelente should follow.⁶ In the early years of the century, when the Venetian ducat circulated in great quantities in Egypt under the name of *īfranty*, the Mamluk ruler An-Nāṣir Faraj (1399–1412) made his new gold coin, called after him the *nāsery*, identical in weight with the ducat,⁷ and so a few years later did Al-Ashraf (1422–38),⁸

⁵ A. C. Teixeira de Aragão, *Descrição geral e histórica das moedas ... de Portugal*, I (Lisbon, 1874), 230. The mint specifications were a fineness of $23\frac{3}{4}$ carats and $64\frac{2}{3}$ pieces to the mark, so the weight was a fraction above that of the ducat.

⁶ Aloiss Heiss, *Descripción general de las monedas hispano-cristianas desde la invasión de los Árabes*, I (Madrid, 1865), 134. The mint specifications were a fineness of $23\frac{3}{4}$ carats and 65 pieces to the mark. The text of the Pragmatic can be most conveniently consulted in Tomás Dasí, *Estudio de los reales de a ocho*, I (Valencia, 1950), Doc. no. 75, pp. LV–LXXIX.

⁷ A. Raugé van Gennep, "Le ducat venitien en Égypte: son influence sur le monnayage de l'or dans ce pays au commencement du XVe siècle," *Rev. Num.*, 4th series, I (1897), 373–81, 494–508. The esteem in which the ducat was held was due to its uniformity of weight as much as to its purity, the gold coins of the Mamluks in the fourteenth century being struck to no weight standard at all. The appearance of the ducat in quantity in Egypt is stated by a contemporary historian to date from about 1388, but seems to have been earlier, since the Florentine Niccolò Frescobaldi found it in common use in Cairo in 1384. An-Nāṣir Faraj's predecessor Saif-ed-dīn (1382–99) attempted to drive it out of circulation by reviving the old dinar of traditional weight, but had no success. Although the *nāsery* was of the same weight as the ducat, it was not of such fine gold and so was valued at less (Raugé van Gennep, *op. cit.*, 499–501).

⁸ Raugé van Gennep, *op. cit.*, 501. The coin of Al-Ashraf, known after him as the *ashrafī*, had a great future before it, since it provided the name and one of the main standards of weight for the later gold coins of Persia (H. L. Rabino di Borgomale, *Coins, medals and seals of the Shahs of Iran, 1500–1941*, Hertford, 1945, 14).

while even Muhammad the Conqueror took the ducat as the standard for his *altun*, the gold coin of the Ottoman Empire, struck for the first time in 1478.⁹

Equally significant is the way in which during the fifteenth century the word *ducat* came to displace *florin* as the common expression for a gold coin. To a writer of the fourteenth century, every gold coin was a "florin" of some particular sort, even if it bore no physical resemblance to the Italian coin and was of quite a different weight. The French *masse d'or* was a *florenus ad sceptrum*, the *chaise d'or* a *florenus ad cathedram*, and so on. But in the fifteenth century the common word was ducat; people spoke of ducats of Bohemia or Hungary, and in Holland and Germany, and even in Florence itself, the florin was termed "ducat of Florence."¹⁰ The fundamental reason for the change was the fact that the Venetian coin had been so little copied in western Europe. The Florentine florin had been widely imitated, many of these imitations were seriously debased, and the bad reputation they earned reflected quite unjustifiably upon their prototype.]

⁹ This at least is the earliest date (A. H. 883) recorded; we do not know positively that the coin was created in this year.

¹⁰ See the remarks of Adolphe Dieudonné, "Des espèces de circulation internationale en Europe, depuis saint Louis," *Revue suisse de numismatique*, XXII (1920), 15-17.

I

THE DESIGN OF THE VENETIAN DUCAT

1284—c. 1840¹¹

The ducat of Venice was struck in pure gold, of weight 3.56 gm.;¹² its diameter was at first 20 mm., but increased later to about 21 mm. The uniform design, which varied only in small details through the centuries, is illustrated by the large, infrequently struck ten-ducat piece shown in PLATE I, 1. The obverse displays St. Mark standing at the left; at the right the doge kneeling, holding a staff or banner, alongside which is the word DVX. The inscription around the border is the doge's name to right, and to left S. M. VENET(VS or I). On the reverse is the figure of Christ, surrounded by stars, in a pointed oval technically known as a mandorla. The legend is SIT.T.XPE.DAT.Q.TV.REGIS.ISTE.DVCAT (*Sit tibi Christe datus, quem tu regis, iste ducatus*, 'Let this duchy which thou rulest be dedicated to thee, O Christ'.)

[According to most works of reference, the name of the coin is derived from the last word of the legend. This is a

¹¹ The main works of reference are Nicolò Papadopoli, *Le monete di Venezia*, 3 vols. (Venice-Milan, 1893-1919); the *Corpus Nummorum Italicorum*, VII-VIII (Rome, 1915-17); and Giuseppe Castellani, *Catalogo della Raccolta Numismatica Papadopoli-Aldobrandini (Civico Museo Correr)*, 2 vols. (Venice, 1925).

¹² The order of the Grand Council of 31 October 1284 which created the ducat prescribed that it should be "tam bona et fina per aurum vel melior ut est florenus" (Papadopoli, *op. cit.* I, 123). Authors like Pegolotti regularly take it as being 24 carat gold, and modern assays have found it to be 997/1000 fine (*Ibid.*, p. 124). The coin was struck at 67 to the mark of Venice. This has been variously estimated at between 237.52 g. and 238.453 g.; at the latter figure the weight of the ducat works out at 5.559 g.

popular derivation which is not correct. The word ducat was first applied to the silver grossi of Venice,¹³ coined from 1202 onwards, on which no such legend occurs, and when the new gold coins came into existence eighty years later they were called *ducati auri*, to distinguish them from the current *ducati argenti*, and ultimately the word "ducat" came to be applied solely to the gold coins. The evolution was precisely similar to that of the word "florin," which was used first of silver coins of Florence and subsequently of the *fiorini d'oro*, or *fiorini* for short. The word ducat originally meant the silver coins struck by Roger II (1102–54) and William I (1154–66) of Sicily from 1140 onwards for the duchy of Apulia, and their name (*ducatus* or *ducalis*) came from the *ducatus Apuliae*.¹⁴ It was presumably applied to the Venetian ducat because of a general resemblance in design,¹⁵ and because no other word existed at that time to denote a silver coin of higher value than a penny.]

Various changes in design occur, in the character of the doge's cap, in the lettering, in the disposition of the figure of Christ and the nimbus in the oval, in the number and arrangement of the stars. These changes, which often offer a means of identifying the prototype of an imitation, are

¹³ The proof is a passage in the chronicle of Martino da Canale, cited by Papadopoli (I, 81), which says under Enrico Dandolo (1192–1205) "fu comencie en Venise a faire les nobles mehaillies d'argent que l'en apele ducat, qui cort parmi le monde por sa bonte." Martino da Canale wrote in the early thirteenth century, before the gold ducat existed.

¹⁴ See the appendix on the ducats of the Norman kings in Arthur Engel, *Recherches sur la numismatique et la sigillographie des Normands de Sicile et d'Italie* (Paris, 1882), 65–71.

¹⁵ The Norman ducat showed on the obverse the standing figures of Roger I and his son Roger, or William I and his son Roger, holding a long cross between them, and on the reverse the nimbate bust of Christ. The Venetian grosso (silver ducat) showed on the obverse two standing figures, the doge and St. Mark, holding a banner between them, and on the reverse the seated figure of Christ.

exhibited, with descriptive notes, on PLATES II to VI, alongside the complete list of doges. [The changes are not always exactly coterminous with the rule of the doges indicated, for there was a certain amount of overlap between some of the types, and particular details, such as the presence or absence of a beard on the doges of the late fifteenth and early sixteenth centuries, evidently depended upon the actual appearance of individual sovereigns. There are also occasionally quite inexplicable variations from the normal type. A ducat of Andrea Dandolo (1344-54) in the collection of Philip Grierson has the cruciform nimbus of Christ on the reverse replaced by a nimbus containing three small crosses, one above and one on either side of the head. In every other respect it is quite normal (wt. 3.51 g.), and there is no doubt that it is a product of the Venetian mint.]

The method of coining the ducats was not changed throughout their history; they were all hammered coins, with the exception of a milled pattern (PLATE VI,2) made under Austrian rule with the name of Francis II. [The earliest ducats had their dies adjusted $\uparrow\downarrow$, or more rarely $\uparrow\uparrow$, this practice, which was very unusual in the middle ages in the West, being no doubt derived from Byzantium.¹⁶ In the second half of the fourteenth century this regularity was abandoned, but it seems to have been revived in the fifteenth century, at least so far as the majority of the coins were concerned, though irregularity is found from time to time in every reign.]

The issue of the ducats did not end with the dissolution of the Venetian Republic in 1797, though it is not easy to discover exactly how much longer their minting continued. Coins in the name of the last doge, Lodovico Manin (1789-97),

¹⁶ See Philip Grierson, "Pegged Venetian coin dies: their place in the history of die adjustment," *Numismatic Chronicle*, 6th series, XII (1952), 103. Cf. also below, p. 34.

are believed to have been struck down to 1823,¹⁷ since they were enormously popular in the Levant. The ducats with the title of FRANC.II¹⁸ were minted during the first Austrian occupation of Venice (1797–1805), partly at the mint in Venice and partly at that of Günzburg. Ducats with the title of FRANC.I¹⁹ were struck at Venice between 1815 and 1822, when their minting was discontinued,²⁰ but coins with the FRANC.II legend were apparently being struck from the old dies in c. 1840.²¹ These are indistinguishable from the earlier issue, but must none the less be regarded as the last Venetian ducats struck by the lawful mint of the city.]

¹⁷ So Carlo Kunz in Paul Lambros, *Monete inedite dei Gran Maestri dell'Ordine di S. Giovanni di Gerusalemme in Rodi* (Venice, 1865), 23, note i.

¹⁸ *CNI*, VIII, 644, nos. 10–11. The numbering of this emperor, who ruled 1792–1835, is peculiar, since he was Francis II as Holy Roman Emperor (1792–1806) but Francis I as Emperor of Austria (1806–1835). Coins giving him the title of Francis II therefore precede those bearing the title of Francis I.

¹⁹ *Ibid.*, 655, no. 38.

²⁰ Siegfried Becher, *Das österreichische Münzwesen vom Jahre 1524 bis 1838* (Vienna, 1835), I (i), 116–117; Josef C. Adam, "Die Münzen unter der Regierung des Kaisers Franz II. bzw. Kaiser I von Oesterreich 1792 bis 1835," *Mitteilungen des Clubs der Münz- und Medaillenfreunde in Wien*, XI (1900), 45.

²¹ Josef Cejnek, *Österreichische Münzprägungen von 1705 bis 1935* (Vienna, 1935), 68.

II

DUCATS OF THE ROMAN SENATE

The earliest imitations of the Venetian ducat, most closely resembling their prototype in style, are the series issued in the name of the Roman Senate²² in the fourteenth and early fifteenth century.²³ They differ from the contemporary Venetian ducats almost solely in their inscriptions. In place of S. M. VENETI we find S. PETRVS; in place of DVX alongside the staff we find SEN, which is continued in the circular inscription as ATOR VRBIS; and on the reverse the inscription is ROMA CAPVT MVNDI. SPQR.

[These ducats are usually dated 1350–1439.²⁴ The terminal date may be accepted, for an exchange table of 1439 de-

²² Though the coins are called "senatorial" because they refer to the Senate and not to the Pope, they were issued by the city authorities with papal approbation, and after the return of the popes to Rome from their sojourn at Avignon there was only a single mint in Rome striking both "papal" and "senatorial" coins. See Camillo Serafini, "L'autorità pontificia nelle monete del Senato Romano," *Atti e Memorie dell'Istituto italiano di Numismatica*, I (1913), 129–41.

²³ The main collections of material are the *CNI*, XV, 160–80, nos. 495–662, and Camillo Serafini, *Le monete e le bolle plumbee pontificie del Medagliere Vaticano*, I (Milan, 1910), 56–63, nos. 377–463. An invaluable study is V. Capobianchi, "Appunti per servire all'ordinamento delle monete coniate dal Senato Romano dal 1184 al 1439," *Archivio della Reale Società romana di Storia patria*, XVIII (1895), 417–45; XIX (1896), 75–123. Edoardo Martinori's "Annali della Zecca di Roma. Serie del Senato Romano, 1184–1439," *Atti e Memorie dell'Istituto italiano di Numismatica*, VI (1930), 220–60, unfortunately got no further than a bibliographical introduction, and is of little use in this connection.

²⁴ See Serafini, *op. cit.*, and the *CNI*. The reasoning is set out by Capobianchi, *op. cit.*, 104–7, 113–14.

scribes the ducat of Pope Eugenius IV bearing his arms, which replaced the ducat of Venetian type, as a *ducato nuovo*. The date of origin is based on the assumption that the ducats were first issued on the occasion of the Papal Jubilee of 1350, since it was on this occasion that the Sudario, the cloth showing the face of the Saviour, was exhibited in Rome and first came into prominence, and the Sudario is very frequently used as a symbol in the legends of the ducats. Such reasoning does not exclude the possibility of some of the ducats being earlier than 1350, and we have good evidence that they were, for the Florentine merchant Pegolotti, writing c. 1340, includes *romanini d'oro a carati 23 e 3/4*, which can only mean these ducats, in the list of gold coins current in his day.²⁵ They did not yet exist in 1317, since the chapters relating to coinage in the *Statuti dei Mercanti di Roma* of this year refer only to money of silver and billon.²⁶ Their origin must therefore be placed between 1317 and c. 1340.

The three stages²⁷ in the history of the senatorial ducat are illustrated on PLATE VII. They differ according to the obverse legend. The first is that closest to the Venetian original, with S. PETRVS (corresponding to S. M. VENETI) reading vertically downwards to left, SEN (corresponding to DVX) reading vertically downwards in the center and finally the remainder of the last word (*Sen*)ATOR.VRBIS reading outwardly downwards, in a position corresponding to the doge's name on Venetian coins, on the right. The second series is identical with the first save that SEN reads

²⁵ Francesco Balducci Pegolotti, *La pratica della mercatura*, ed. Allan Evans (Mediaeval Academy of America, Publications No. 24, Cambridge, Mass., 1936), 287. On the date at which Pegolotti was writing, *ibid.*, xiii-xiv. Much of the material is earlier, but how much earlier it is impossible to say, since the text has not yet been critically analyzed.

²⁶ Capobianchi, *op. cit.*, 104.

²⁷ The CNI and Serafini have three stages; Capobianchi makes five by further subdividing the second and third according to the way in which SPQR is written in the reverse legend.

vertically upwards, making the sequence ATOR.VRBIS a more natural one. The third continues this arrangement, but S. PETRVS now reads outwardly upwards, following the circumference of the coin. Within these broad divisions there are many varieties of moneyer's or issue marks (crossed keys, Sudario, Moor's head, rose, etc.), some of which are also found on silver coins which bear the names of individual popes and thus allow groups of ducats on which they occur to be given an approximate date.²⁸ In the final period the banner on the obverse terminates below in a shield with the Condulmerio arms (PLATE VII, 4), those of Pope Eugenius IV (1431-47), whose personal name was Gabriello Condulmerio.]

These coins were followed by the regular papal coinage of ducats, retaining the old size and weight but with designs in which all traces of the Venetian type are lost. [The only apparent exception to this is the ducat — a double ducat also exists — of Paul II (1464-71) showing the kneeling pope receiving the keys from St. Peter (PLATE VIII, 4), but the resemblance between it and the traditional Venetian type is purely accidental. The bestowal of the keys was an obvious theme on a papal coin, and the design is one of a remarkable series of novel types produced towards the middle of the fifteenth century by an enterprising and talented moneyer and die-engraver, Miliano Orfini of Foligno, who worked for a number of years in the papal mint.²⁹

The existence of this Roman series of imitation ducats is at first sight an anomaly, since the only other large group of Venetian imitations was situated in the eastern Mediterranean area, and there is no reason to suppose that Venetian

²⁸ See E. Martinori, *Annali delle Zecca di Roma: Urbano V - Giovanni XXIII* (Rome, 1917), 9, 25, 31-2, 41, 49; *Martino V - Eugenio IV* (1918), 8-9, 29.

²⁹ See E. Martinori, *Annali della Zecca di Roma: Nicolò V - Pio II* (Rome, 1918), *Paolo II* (1917), and *Sisto IV - Innocenzo VIII* (1917), *passim*; L. Forrer, *Biographical Dictionary of Medallists*, s.v. Orsini (sic.!), Emiliano.

coinage was particularly important in Rome. The most likely explanation is that since the economic life of the city revolved around the financial operations of the papal curia and the entertainment of visitors, in either case being concerned with the subjects of every European state, it was desirable to have a gold coinage which approximated in value and appearance to one or other of the best known coinages of the day. The florin was out of the question, for the Roman mint was largely controlled and administered by Florentines, and the magistrates of Florence took strong exception to the imitation of the coins of their city and endeavored to prevent it where they could. If the florin could not be imitated, the Venetian ducat was the next best thing, and the moneyers had no scruples in making the resemblance as close as they reasonably could.]

III

OTHER WESTERN EUROPEAN IMITATIONS

The further imitations of the Venetian ducat in western Europe are, unlike the copies of the Florentine florin, relatively few, and never occur far afield from Italy. No considerable coinages took place, and specimens of such as exist are rare.

Genoa, the great maritime rival of Venice, adopted the type of standing saint and kneeling ruler in the middle of the sixteenth century for some of its silver coinage, but not for any extensive gold coinage. There occurs, however, a gold ducat (PLATE VIII, 1) closely resembling the Venetian piece, with obverse inscription DVX.ET.GVB REIP.GEN and reverse inscription DEO.OPT.MAX.GLO. This ducat, in the former King of Italy's collection,³⁰ is not listed in any of the principal works on the coinage of Genoa, and should perhaps be classed as a pattern, [though the only recorded specimen shows considerable signs of wear. Its style, and the fact that a similar Venetian type was introduced on the silver testone in 1554, permits us to assign it to the mid-sixteenth century.]

In the same category of pattern is to be placed a unique silver piece of Duke Ferdinand Gonzaga of Mantua (1612-26), illustrated on Plate VIII, 2, which shows St. Andrew standing, holding a long cross and a monstrance, with the kneeling and bare-headed duke to the right.³¹ The obverse inscription

³⁰ *CNI*, III, 258, no. 1.

³¹ First published by N. Papadopoli, "Monete italiane inedite della Raccolta Papadopoli," *Rivista italiana di numismatica*, XXVI (1913), 81-2, and reproduced in *CNI*, IV, 355, no. 125. The coin is now in the Correr Museum at Venice (no. 4049).

is FER. D. G. DVX. MAN. VI. E. M. F. with IIII, i. e., his number as duke of Montferrat (MF) beneath. On the reverse is the figure of the Virgin in a mandorla surrounded by the inscription PRAESIDIVM NOSTRVM.

Belonging also to the group of imitations of the Venetian ducat is the piece issued by Amadeus VIII of Savoy (1416-39)³² shown on Plate VIII, 3, which, however, illustrates the breaking away from the design of the prototype which is common in imitative coinages and which will be seen again in the coins of Malta. In this case the reverse shows instead of the figure of Christ the arms of Savoy. The obverse has the standing saint and the kneeling ruler, but the saint (Maurice) is a figure in armor. The inscriptions are AMADEVVS.DVX.SABAVDIE and SIT.NOM.DIN (*sic*) BN. DTM (*sit nomen Domini benedictum*).

The next two continental European imitations to be noted are of interest as being the most northerly excursions of the Venetian type. The first is the ducat issued by the principality of Dombes in Burgundy in the seventeenth century. This (PLATE VIII, 5) has the type of St. Mark and the kneeling ruler, with DVX alongside the standard. The inscription is FRANC. PRINC on the right and SM TREVO upwards on the left. On the reverse the inscription is SIT XI ADIVTO REGIS TE DOMBA.

[These ducats were first ascribed by numismatists to Francis II of Dombes (1582-92), as the name FRANC seemed to imply. But the design of the reverse, with stars above and below the figure of Christ, corresponds to that of Venetian ducats of the mid-seventeenth century, and it is now agreed that they must be assigned to Anne Marie Louise de Montpensier, princess of Dombes (1650-93). Boucher d'Argis, who was a member of the sovereign council of Dombes and had

³² *CNI*, I, 48-9, nos. 1-8.

access to its records, wrote of the exploitation of the right of coinage by the mint of Dombes during her reign :

Mademoiselle de Montpensier fit travailler longtemps à la monnaie de Trévoux; on y fabriqua des pièces de 15, 30 et 60 sols, mais surtout beaucoup de pièces de cinq sols dont il se fit un grand commerce dans le Levant et des sequins d'or au coin de saint Marc. Les Vénitiens s'en plaignirent hautement; mais la souveraine de Dombes leur répondit que saint Marc était le patron de Trévoux comme il l'est de Venise.

The name FRANC was used to preserve the resemblance to the Venetian coins, on none of which the name *Marie* appears, and was probably specifically intended to recall the ducats of Francesco Erizzo (1631–46), FRANC (*iae*) PRINC (*eps* or *essa*) being not very remote from FRANC.ERIZZO.³³

Of the same period are the ducats issued in 1650–72 and 1679–86 by William Henry, Prince of Orange and later William III of England (PLATE VIII, 6), bearing for obverse inscription GVIL.HENR.D on the right, and on the left, reading vertically upwards, GPRAV.E.S. The reverse legend reads SOLI.DEO.HONOR.SIT.GLORIA.³⁴ These, like the

³³ The attribution is discussed in an excellent article by P. Mantellier, "Sequins frappés à Trévoux," *RN*, 2nd series, II (1857), 264–79, from which the quotation of Boucher d'Argis cited above is taken. Trévoux was the mint of Dombes. Mantellier's conclusions are summarized in F. Poey d'Avant, *Monnaies féodales de France* (Paris, 1862), III, 96–7. Arnold Morel-Fatio, "Les sequins fabriqués par les princes de Dombes à Trévoux," *RN*, 2nd series, X (1865), 199–204, subsequently argued that the coins should be assigned to Anne Marie Louise's predecessor Gaston (1627–50), on the ground that he was Francesco Erizzo's contemporary, but this is not sufficient proof, and we have documentary evidence for Anne Marie Louise's interest in the affair. Morel-Fatio does, however, publish a uniface copper piece of Venetian ducat style, perhaps a pattern for such a coinage of Gaston, with the legend DVX.G.DOM S.M. TREVO.

³⁴ N. Papadopoli, "Imitazione dello zecchino veneziano fatta da Guglielmo Enrico d'Orange (1650–1702)," *Riv. Ital. Num.*, XXIII (1910), 333–40. The existence of the coin had been known to Poey d'Avant (II, 410), but only on the authority of Duby, who in turn relied on the description of a

ducats of Dombes, were issued for the Levant trade. In both of these ducats a V of the obverse inscription is arranged to fall in the position of the V in the S. M. VENETI of the prototype, so that on casual inspection the piece would appear to be a Venetian ducat.

The last European ducat imitation to be noted is of peculiar interest because it was issued in Florence, where the florin was for centuries the chief rival of the Venetian ducat. It was not an official issue, but was put out in 1805 as a commercial venture for use in the Levant. It bears on the obverse a standing saint and a kneeling bishop holding a crozier; the inscription is S. M. FLOR. D. ZEN. E.P.F. (i. e. *Divus Zenobio episcopus Florentiae*). To the left of the crozier, reading vertically downwards, is ALVX. On the reverse, surrounding the figure of St. John in a mandorla, is the inscription S. IOAN. BAPT. F. ZACHAR (PLATE VIII, 7). [These ducats, which were known as *Zenobini* or *Zanobini*, were struck at the Tuscan mint for a banker named Cesa Lampronti, and were made deliberately crude in style so as to resemble more closely the last coinages of Lodovico Manin. The venture was not a success and many of the coins were withdrawn and remelted, which accounts for the present rarity.³⁵ There exists another version, of much better

specimen in the imperial collection at Vienna in Johann Friedrich Joachimi, *Das neueröffnete Münzcabinet*, III (Nürnberg, 1770), 36-8.

³⁵ The best account is that of Guido Ciabatti in a ten-page pamphlet published at Florence in 1865 and entitled *Illustrazione dello zecchino de Zanobino (moneta inedita)*. Ciabatti made inquiries about it at the mint and discovered the original dies used for striking the coins; he illustrates a working impression made from them. He was mistaken, however, in supposing the coin to be unpublished. A specimen in the Reichel collection, now in the Hermitage, was described in *Die Reichelsche Münzsammlung in St. Petersburg*, IX (St. Petersburg, 1843), 466, no. 2, and one in some Italian collection was illustrated in [Giuseppe Grimaldo], *Numismata Venetiae* (Venice, 1859), under Doge XLVIII, while the origins and nature of the piece had been briefly described by J. G. Pfister, "On an unedited gold

style and without the meaningless ALVX, but this bears every mark of being a modern forgery put out to deceive collectors (PLATE VIII, 8).]

coin of Florence, struck in 1805, which was called "Il Zecchino di San Zenobio," *Numismatic Chronicle*, XVI (1853-4), 77-80. There was a specimen of the coin in the Ruchat sale, Part II (Rome: Santamaria, 13 June 1921), no. 1266.

IV

DUCATS OF THE KNIGHTS OF ST. JOHN OF JERUSALEM AT RHODES AND MALTA

The longest series of ducats of Venetian type, next to the series of Venice itself, was issued by the Knights of St. John of Jerusalem, continuing from the middle of the fourteenth to nearly the middle of the eighteenth century. This series is not continuous, for ducats were not coined, or at least I have not been recovered, for about a third of the Grand Master's reign. Rather considerable deviations of design from the Venetian prototype are found in the series, but on the whole they are close copies of the current coins of Venice.

On PLATES IX–X the complete list of Grand Masters is given, with asterisks to indicate those who are known to have struck ducats. Representative coins of all the main types are shown to the right.

RHODES³⁶

The first gold ducat was struck by Dieudonné de Gozon (1346–53), with the obverse of the Venetian type: the Gr

³⁶ The two chief works are Gustave Schlumberger, *Numismatique de l'Orient latin* (Paris, 1878), 214–68, and *Supplément* (1882), 14–15, 21–22, and Baron Édouard Henri Furse, *Mémoires numismatiques de l'Ordre souverain de saint Jean de Jérusalem*, 2nd ed. (Rome, 1889). It is often necessary to refer to the older monographs of Julius Friedlaender, *Die Münzen des Johanniter-Ordens auf Rhodus, 1309 bis 1522* (Berlin, 1843), and the work of Lambros referred to above, p. 8, n. 17. An essential study of the earliest ducats is Nicolò Papadopoli, "I primi zecchini dei Gran Maestri dell'Ordine di San Giovanni di Gerusalemme," *Procès-Verbaux et Mémoires du Congrès International de Numismatique, Bruxelles, 1910*, 349–58.

Master kneeling, receiving a banner from the hands of St. John the Baptist. The reverse has the distinctive design of an angel seated on the tomb of Christ. The obverse legends are S.IOhES.B vertically downwards on the left, MGR (*Magister*) vertically downwards in the center, and F(*rater*) DEODAT downwards on the right. The reverse legend is +hOSPITALIS QVENT.RODI, the Q being an abbreviation mark for *con*, so that QVENT stands for *conventus*. This type was also struck by the next Master, Pierre de Cornillan (1354-55).

The next appearance of the ducat is under Antoine Fluvian (1421-37), who issued extremely close imitations of the Venetian coin, with the inscription S.M.VENET and DVX, differing only in the name of the "doge," F.ANTONIVS. These pieces were protested by Venice, and the Grand Master issued a second series on which the reference to St. Mark and Venice was replaced by one to St. John the Baptist and MRO was sometimes substituted for DVX. The next ducats known, those of Jacques de Milly (1454-61), followed essentially the same pattern, with the reverse of the Venetian ducat, and on the obverse the kneeling Grand Master, bare-headed, with the cross of the Order on the shoulder of his robe, and the name of St. John instead of St. Mark.

The ducats of the last six Grand Masters at Rhodes, from Jean Ursino (1467-76) to Philippe Villiers de l'Isle d'Adam (1521-22), are close copies of the Venetian ducat (including the doge's cap), differing only in the obverse inscription. This has F(*rater*) and the Master's name on the right, S.IOhANIS to the left, and, in place of DVX alongside the staff, M.P. (*magister Petrus*) or another Master's initial. The introduction of the exergual line at about 1500 in the Venetian ducat is reflected in the ducat of Émery d'Amboise (1503-12).

MALTA³⁷

The coinage of ducats by the Knights of St. John, interrupted by the expulsion of the Order from Rhodes in 1522, was resumed at Malta after 1534 with pieces still closely copying the contemporary Venetian designs. Certain changes, however, were made at this time, to continue for nearly a century. The obverse inscription no longer mentions St. John but gives the name of the Grand Master in full, around the circumference of the coin. In the case of one ruler, Jean d'Homèdes (1536-53), the date appears beneath the exergue line. The reverse design is still Christ surrounded by stars and a mandorla, but the inscription is changed to DA·MHI·VIRTVTEM·CONTRA·HOSTES·TVOS.

Early in the seventeenth century, with Antoine de Paule (1623-36), the kneeling Grand Master again begins to be represented bare-headed, and St. John is depicted in a short skirt.

At the end of the seventeenth century a major change in design was introduced with the abandonment of the figure of Christ on the reverse in favor of the arms of the Grand Master, and the date reappears. Under the two Grand Masters issuing these pieces, Grégoire Caraffa (1680-90) and Adrienne de Wignacourt (1690-97), there were also struck four-ducat pieces of the same general style (PLATE I, 2), on which, however, the kneeling figure on the obverse is no longer robed but appears in contemporary costume.

Under the last three rulers who issued ducats of the Venetian type (1697-1736) the obverse figures are again changed. St. John appears in a tattered costume, the Grand Master in ornamental knee-breeches, and the staff carries a large flag bearing a cross. The inscription is VINCES PIETATE.

³⁷ The chief authorities are the book by Furse, cited in the preceding note, and H. Calleja Schembri, *Coins and medals of the Knights of Malta* (London, 1908).

the reverse appear the arms of the Grand Master with his name and title.

This series ended in 1725. After it the ducat continued for a time as a monetary denomination, but with the portrait of the Grand Master on the obverse, thus losing all resemblance to the Venetian coin so long imitated.

V

OTHER EASTERN MEDITERRANEAN IMITATIONS

Concurrently with the coinage of ducats by the Knights of St. John of Jerusalem and with the wide circulation of the Venetian ducat in the Latin kingdoms and principalities of the eastern Mediterranean, there occurred a number of imitative coinages in that region. The ducats in this category are all close imitations of the Venetian type, with the substitution of local rulers' names for those of the doges and other saints for St. Mark. They are frequently of base gold and crude workmanship.

The most complete series of these pieces was issued on the island of Chios,³⁸ under Genoa, starting with the coinage of Tommaso di Campofregoso (1415-21), which bears the obverse inscription T.DVX.IANVE and S. LAVRET (PLATE XI, 1).³⁹ The figures of the saint and duke on the obverse, and of Christ on the reverse, with the usual reverse legend *tibi Christe*, etc., are closely copied from the contemporary Venetian coins.

Following the reign of Tommaso di Campofregoso, Chios together with Genoa, came under the rule of Milan, and the gold ducats of 1421-36 (PLATE XI, 2) have the inscriptions

³⁸ The best accounts of the ducats of Chios are in Schlumberger, *op. cit.* 418-23, and *Supplément* (1882), 17-18, and Paul Lambros (Lampros), *Μεσαιωνικά νομίσματα τῶν δυνάστων τῆς Χίου* (Athens, 1886). The classic monograph of Domenico Promis, *La zecca di Scio durante il dominio dei Genovesi* (Turin, 1865), is still of use. The two articles by Gnecci in *Rivista italiana di numismatica* for 1882 do not touch on the ducats.

³⁹ Lambros and Schlumberger, probably with justice, attribute to Chios a number of the blundered imitations of Venetian ducats of the late fourteenth and early fifteenth centuries of the types discussed below, pp. 25-

D(ux). MEDIOLANI for Filippo Maria Visconti, duke of Milan, and the saint is S.PETRVS.⁴⁰ After 1436 until 1443 Tommaso di Campofregoso again coined ducats, and the series is continued by five Campofregosi until 1458, with a return to St. Laurence as the patron saint. In this period the staff for the standard commonly rests on a large S for *Sius*, one of the ways in which the name of the island was spelled (PLATE XI, 3). The last of this series is a ducat issued in 1458–61 by Charles VII of France during his rule at Genoa, with CLI in place of DVX alongside the standard, and COMVN.IAN and S. LAVRETI for inscription (PLATE XI, 4). [The initial L of *Laureti* is written like a V to recall the word *Veneti*.]

To be included in the Chios series also are the ducats issued by Venice under the doge Leonardo Loredan (1501–21) which were known as Sciotti and were intended for the Levant (PLATE XI, 5)⁴¹. They are of rather crude workmanship, with the obverse inscription entirely encircling the figures.

In this same general category are the ducats coined for the island of Mytilene by its rulers, the Gattilusi, between 1376 and 1462, with the ruler's name and D. METELI[NI] (PLATE XII, 2–3).⁴² Still farther east are to be noted the ducats of

⁴⁰ A specimen of the coin in the imperial collection at Vienna was published by Alfred Nagl, "Ueber eine Mailänder Goldmünze nach dem Typus des Venetianer Dukatens," *Numismatische Zeitschrift*, XXIII (1891), 181–90. He attributed it to Milan itself, and supposed it to have been struck to commemorate the bestowal of the title of duke on Gian Galeazzo Visconti in 1395. F. Schweitzer, who had published it earlier ("Zecchino di tipo veneto dell'arcivescovo Giovanni Visconti, signore di Milano (1349–54)" in his *Notizie peregrine di numismatica e d'archeologia*, III (Trieste, 1856), 65–70), had equally incorrectly attributed it to Giovanni Visconti.

⁴¹ The name *sciotti* and the design are known from a Venetian exchange table of 1543 reproduced in Papadopoli, *Monete di Venezia*, II, facing p. 178. There was a specimen of the coin in the Biblioteca Reale at Turin (Papadopoli, *op. cit.*, II, 179) as well as the one illustrated here.

⁴² Schlumberger, *op. cit.*, pp. 432–46 (by Lambros); *Supplément*, pp. 18–19.

Foglia Vecchia (Phocaea) on the mainland of Asia Minor issued by Dorino Gattilusio (PLATE XII, 4), with the inscription D.FOLIE.⁴³ Most easterly of all are the ducats of Chiote type struck by Filippo Maria Visconti and Tomaso di Campofregoso for Pera, the Genoese quarter of Constantinople.⁴⁴ They have a large P at the base of the staff, taking the place of the S on the ducats of Chios.

In the series of eastern Mediterranean ducats must also be included certain close copies of the ducat of Andrea Dandolo (1344-54), with blundered lettering and with a K or L at the feet of the figure of Christ on the reverse (PLATE XII, 3). These have been attributed to Robert of Anjou, duke of Achaia (1346-64), and if this is correct they were presumably struck at Chiarenza.⁴⁵

⁴³ *Ibid.*, pp. 442, 445-6. P. Lambros in his 'Ανέκδοτα νομίσματα καὶ μετὰ βιβλίον τῶν κατὰ τοὺς μέσους αἰῶνας δυνάστων τῆς Ἑλλάδος (Athens, 1880), 66-73 publishes two further imitation ducats which in his view contained the names of Andreolo and Domenico Cattaneo. They are reproduced in Schlumberger, *Suppl.*, pl. XXI, 16, 18; cf. p. 19. In my view legends are merely blundered and the attributions quite uncertain.

⁴⁴ Schlumberger, *op. cit.*, pp. 447-54. It is largely a summary of P. Lambros, 'Ανέκδοτα νομίσματα κοπέντα ἐν Πέραν ὑπὸ τῆς αὐτοῦ ἀποικίας τῶν Γενουσιῶν (Athens, 1872). In his *Supplément*, 22, Schlumberger notes the acquisition of a further specimen by Lambros.

⁴⁵ Schlumberger, *op. cit.*, pp. 320-1. There is a long series of them in the Papadopoli collection, now in the Museo Correr at Venice; see Castellani, *op. cit.* (above p. 5, n. 11), nos. 16216-32. For one struck in silver, see below, p. 10 and Pl. XIII, 2. The attribution to Robert of Anjou was made by P. Lambros in his 'Ανέκδοτα νομίσματα κοπέντα ἐν Γλαρέντσα κατὰ μέμνησιν Ἑνετικῶν ὑπὸ Ροβέρτου τοῦ ἐξ Ἀνδηγῶν ἡγεμόνος τῆς Πελοποννήσου 1346-1364 (Athens, 1876). It is certain that the Greek workmen who made these coins often substituted K for R, a letter which did not exist in the alphabet; cf. ANDK for ANDR on the obverse of many of these coins. Nevertheless the attributions seem to me rather hazardous, and Papadopoli apparently did not accept them.

VI

ANONYMOUS LEVANTINE IMITATIONS

The Venetian ducat circulated widely in the eastern Mediterranean or Levant; this we know from the written records,⁴⁶ and it is confirmed by the frequent occurrence of ducats with a Turkish counterstamp (PLATE V, 1) meaning "standard" or "genuine."⁴⁷ In addition to the Venetian and other "official" issues of Rhodes, Malta, Chios, etc., there was a very wide circulation of imitations, often of poor workmanship, with jumbled or illegible inscriptions, of metal of varying degrees of baseness. These can only be attributed to a place of origin if their provenance happens to be known; usually they are merely described as "Levantine imitations." A few selected specimens are shown in PLATE XIII, which together with the impressions from dies described in Sec-

⁴⁶ For many later medieval records, see the article by Raugé van Gennep cited above, p. 3, n. 7. One of his most striking instances is that of an Arab historian of the fifteenth century giving the price of wheat at Mecca in terms of Venetian ducats. I know of no collection of material dealing with later centuries, but all contemporary accounts of the Ottomans remark on their importance. Much information on their circulation in Persia will be found in the work of Rabino di Borgomale, cited above, p. 3, n. 8. They were the chief form in which foreign gold entered Persia (pp. 3, 38), and had a premium over other gold coins since they were bought up by money-changers to sell to travelers to Mecca or India (p. 42), as their international reputation made them acceptable everywhere.

⁴⁷ Paul Bordeaux, "Les sequins venitiens contremarqués de caractères arabes," *Riv. ital. num.*, XXIII (1910), 119-26. This particular countermark is found on ducats ranging from the late sixteenth to the early eighteenth century, and appears to have been imposed on coins entering Asia Minor in the early eighteenth century from the newly conquered provinces of Greece and the Morea.

tion VIII and shown on PLATE XVI will serve to illustrate the whole series.

[The first and second specimens are imitations of ducat Andrea Dandolo (1344-54), the legends in both cases being perfectly recognizable. The first of the two is of the same metal and style as the original, and clearly a contemporary imitation. They are fairly common,⁴⁸ and it is probable that one of their chief centers of manufacture was in Chios. The second coin, which belongs to the class ascribed conjecturally to Robert of Anjou, is of silver and of good style, though the legend is badly blundered. It was no doubt originally gilded and the spread fabric, which makes it decidedly larger than the normal ducat, was necessary in order to bring it up to full ducat weight.]

The third specimen is typical of very large numbers with semi-legible inscriptions cut by illiterate engravers. In this case the character of the doge's cap, the occurrence of an exergual line, and the nimbus of Christ projecting beyond the oval, date the prototype as of about 1500, but the doge's name cannot be deciphered or identified with any doge of this period. Other specimens of this kind can be identified by their more legible inscriptions as copies of doges through the seventeenth and eighteenth centuries.⁴⁹

The fourth specimen is of extreme crudity in the rendering of the figures, and the inscription can be recognized as a bungled PAVL.RAINER (1779-89). [No. 5 is an imitation of some unidentifiable eighteenth century doge, but its abnormal weight (2.95 g.) makes one suspect that it is a trinket made by a jeweller and was not intended as a coin at all.

⁴⁸ See Schlumberger, *op. cit.*, 497 and Pl. XIX, 25-26, and *Supplément*, and Pl. XXI, 19-22, for illustrations of other specimens. There is a similar series in the Papadopoli collection (Castellani, nos. 16197-16215). The coins assigned to Robert of Anjou (above, p. 24) really belong to the same class.

⁴⁹ See Castellani, *op. cit.*, nos. 16086-94 (14th-15th century imitations attributed to Chios), 16233-70 (14th-18th century imitations), 16271 (imitations in copper).

No. 6 is a nineteenth century imitation of a ducat of the last doge, Lodovico Manin (1789-97). The counterstamp is of a type which during the past half-century has, at least in theory, been placed on all gold objects passing through the hands of goldsmiths in Egypt. It has three panels: the left one contains the fineness, the center one the name of King Faruk, and the third Roman or Arabic letters indicating the date. The more usual occupant of the central panel is an ibis, the international goldsmith's symbol for Egypt. In this particular case the fineness is 21 carats and the date letter is J, which represents a period running from 11 February 1951 to 8 January 1953.⁵⁰

The last two coins illustrated belong to a different class. No. 7 is an imitation ducat of Marino Falier (1354-5). This doge ruled for only seven months, and his short reign makes his ducats among the rarest in the Venetian series. It is in the highest degree improbable that they would have been imitated in the Levant, and it seems likely that this piece is a crude modern forgery produced with the interests of the collector in mind.⁵¹

The final specimen, No. 8, is of peculiar interest in the domain of imitations, because it copies not one current gold piece but two. It is of base gold and scyphate, like the later Byzantine nomismata, and the obverse type is that of two standing figures clearly derived from Byzantine models; the figures in fact closely resemble those appearing on the coins of such twelfth century sovereigns as Manuel I (1143-80) and Isaac II (1185-1204). The inscription is Greek in appearance,

⁵⁰ I owe this information to Dr. George C. Miles, who will shortly contribute a study of these counterstamps to *Museum Notes*.

⁵¹ There are other forgeries of the rare coins of this doge. See Castellani, *op. cit.*, no. 16544 for a specimen of an otherwise unknown denaro scodellato, and a copper piece published by Philip Grierson, "Deux fausses monnaies vénitiennes du moyen âge," *Schweitzer Münzblätter*, IV (1954), 86-90.

but quite meaningless. The reverse type is the figure of Christ in a mandorla, surrounded by stars, with a blundered inscription. From the fact that the stars completely surround the figure, it is evident that the prototype for this coin is of the seventeenth century or later. [The piece came from Cyprus, and its abnormal type and weight (3.75 g.) suggest that it is a jeweller's ornament and not a coin.]

VII INDIAN IMITATIONS

Venetian ducats, "checkens," "checkeens," chequeens,"⁵² played a prominent role in the commerce of Europe with India. References to the occurrence of Venetian ducats in India occur as early as the fifteenth century, [and the Portuguese discoverers found them in use at Calicut and in the treasury of the king of Ceylon. A late fourteenth century hoard of 448 gold coins found at Broach (near Bombay) in 1882 included 34 Venetian ducats, and smaller finds of later centuries have been recorded elsewhere in India and as far afield as Ceylon. The coins seem to have been especially common in the Malabar region, on the west coast, and are frequently referred to in commercial records down to the early nineteenth century.⁵³ They were known in southern India as *śāṇārak-*

⁵² For variant spellings, see the *Oxford English Dictionary*, s. v. "chequeen." It comes from It. *zecchino*, an alternative word for the Venetian ducat, and appears in English in the late sixteenth century; it has only recently been driven out by the form *sequin*, imported from France. *Zecchino* in turn derives from It. *zecca*, "mint," from Arab. *sikka*, originally a die used in coining but by transference the mint where the work was done. Cf. such terms as "sikka" rupees, common in the literature of the East India Company, meaning newly minted coins fresh from the dies. *Zecca* is sometimes supposed to be connected with *Giudecca*, the quarter of Venice where the mint was situated, but this is unlikely; *Giudecca* is traditionally supposed to mean "ghetto," from *giudeo*, "Jew."

⁵³ See T. G. Aravamuthan, *Catalogue of Venetian coins in the Madras Government Museum* (Bulletin of the Madras Govt. Museum. New Series, General Section, vol. III, Pt. 3, Madras, 1938). Only 15 coins, one of them an imitation, are in the museum, but the publication is of the greatest value for its collection of references to ducats and its information on commercial relations between Europe and India.

kāśu, "the coin of the śāṇār," the *śāṇār* being a toddy-drawer a person whose profession it is to climb the palm trees and draw off the sap from which toddy is made. It has been supposed that the figures of either St. Mark or the doge were mistaken for a *śāṇār*, the staff between them being the palm tree, but this is scarcely likely. An alternative explanation is that the word comes from *Venetiano*; the dropping of the unaccented first part of the word would leave something like *shano*, and the assimilation of this to *śāṇār* would provide obvious popular etymology.^{54]}

Imitations are found of all degrees of degradation of descriptions and of quality of metal. It is difficult in many cases without knowledge of provenance, to differentiate the copies from the "Levantine" imitations,⁵⁵ but in some instances the types take on a distinctively Hindu character which makes the attribution to India unquestionable. A few selected specimens are shown on PLATE XIV.

Attention may be called to the transformation of the staff-bearing banner or cross into a staff or tree with trident-like top; to the appearance of a floral pattern at the feet of the figures, which Aravamuthan identifies as a lotus in bloom and to the transformation of the figures into Hindu deities. This transformation is shown most completely in Nos. 6 and 7, where the standing figures on the obverse are the Hindu deities Rama and Sita and the reverse figure their devotee Lakshmana.⁵⁶ The obverse inscription of No. 6 is a recognizable rendering of ALOY.MOCEN S.M.VENET. In the latter piece, No. 7, although the workmanship is excellent in the figures of the deities, the inscription is a mere jumble of pseudo letters. The place of issue of these pieces is unknown.

⁵⁴ So Aravamuthan, *op. cit.*, 6-7.

⁵⁵ Nos. 1 and 2 on PLATE XIV may well be Levantine, not Indian, since No. 1, which is of silver, was procured in the Levant.

⁵⁶ Pp. 4-6. Aravamuthan illustrates such a piece, one of eight in the possession of a Cawnpore family which had owned them for several generations.

It is probable that many of these pieces were made not for currency but to be used in necklaces or other jewelry, where their broad flan was more acceptable than the small thick native Indian gold coins. [Oliver Codrington, who described the Broach hoard alluded to above, wrote of Bombay in 1882 that "the sequin still holds its own as the favorite coin for ornaments in this part of India" and declared that "they are still made in quantities in the city, a thin piece of gold being hammered between rudely cut coin dies of the shape of hammer beads."⁵⁷ In Travancore such necklaces were much worn by the Syrian Christians, who prized them as religious medals.⁵⁸]

⁵⁷ Quoted by Aravamuthan, *op. cit.*, p. 4.

⁵⁸ Aravamuthan, *loc. cit.* The Portuguese colony of Goa had the reputation of being a prolific source of these trinkets. See R. H. C. Tuffnell, *Coins of southern India: hints for coin collectors* (New York, 1890), 34-5.

VIII

GILT COPPER DUCAT TOKENS

The design of the Venetian gold ducat is clearly recognizable in certain gilt copper pieces frequently found either isolated or as ring-mounted charms in the Levant. Two specimens are shown on PLATE XV, 1, 2. They are well struck of good workmanship, but both figures and inscriptions are mere caricatures of the originals. On the obverse the central staff and exergual line are prominent; the figures of St. Mark and the doge are represented by plant- or flower-like groups of human figures. The inscription is Σ ΙΔΟΓΝΟCEN·ΟΥ ΜΕΙ, which is obviously a degraded AΛΟΥ.ΜΟCEN ΣΑΥΕΝΕΤΙ; alongside the staff are the letters ΟCΥ. On the reverse the figure of Christ in the pointed oval has become a device resembling an inverted anchor; the inscription \cdot ΔΙΟΕΣΙΜΙΥΟ \cdot · ΑΝΙΥΕΘΑΤΟΥ, in perfectly clear well-cut letters, defying interpretation.⁵⁹

A later and apparently final form of these tokens has the same obverse and reverse type and the same obverse legend but with the reverse legend altered to JOANNES.ΙΛΙΟΥ.ΚΟΥΥΥΣ. ΣΥΙ. ΦΙΛΙΥΚΥΕ (PLATE XV, 3, 4). These tokens, which are of two sizes and are usually gilt, are reputed to have been struck by London merchants named John Cook and Sons in the nineteenth century for the East African trade.

With these shoddy tokens the long line of ducats, which flourished for over five hundred years as a "universal coinage of high esteem, comes to an end.

⁵⁹ A specimen of this piece illustrated by C. F. Keary ("The Morphology of Coins," *NC*, 3rd series, VI (1886), p. 81 and Pl. V, 100) is attributed to north Africa, but a Levantine origin is more probable.

IX

DIES FOR DUCAT IMITATIONS

Interesting evidence regarding the places of origin of ducat imitations is furnished by dies which have been discovered and recorded from time to time. The first to be noted is a die described in the *Indian Antiquary* for 1873.⁶⁰ This die, which is of bronze, was found at Umreth, a town in the Kaira Zilla, north of Bombay, and after cleaning yielded the inked impression shown on PLATE XVI, 1. The figures are fairly close copies of the standard Venetian type; the inscriptions are blundered, but that of the obverse is recognizable as one of the doges named Alvise Mocenigo. The date of fabrication of the die is not known, but, from the name of the doge it must be of the eighteenth or nineteenth century.

The second die is described and illustrated in the *Numismatic Chronicle* for 1952,⁶¹ and an impression from it is shown on PLATE XVI, 2. In this the figures are of poor workmanship and the inscriptions somewhat blundered, but recognizable as those of Lodovico Manin, the last doge of Venice. The die was found in the region of the Persian Gulf.

The third die to be noted is in the possession of the American Numismatic Society, which secured it from a visitor who

⁶⁰ J. Burgess, "Discovery of dies," *Indian Antiquary*, II (1873), 213-14. The pair of dies was seized by the police in the house of a suspected receiver of stolen property, and was accompanied by another for striking counterfeit gold coins in the name of Shah Alam. The article notes the existence of a forged die in the Calcutta Mint museum used for making ducats of Giovanni III Corner (1709-22), and of a genuine (?) one for ducats of Lodovico Manin.

⁶¹ R. A. G. Carson, "Dies for an imitation zecchino," *NC*, 6th series, XII (1952), 113-14.

bought it in the bazaar at Damascus. The die, of bronze illustrated on PLATE XVI, 3 and an impression from it shown on PLATE XVI, 4. The figures are of neat but barbaric workmanship; the inscriptions are meaningless, but obviously blundered from those of a ducat of Paolo Renier (1779-89). The similarity of this impression to certain of the imitations shown in PLATE XIII is quite close.

[These three dies are of the traditional medieval type being simply bars or blocks of metal which in striking would be aligned by the eye of the workman without further mechanical aid. Two more elaborate pairs of dies are known to exist. One of them, found in Crete and now in the Bibliothèque Nationale, was published and illustrated by Philip Grierson in 1952.⁶² It consists of two blocks of iron in which steel dies had been fitted. The blocks were held in place, when a coin was being struck, by projecting iron pins on the upper block fitting into corresponding holes in the lower one. In view of the good style of the coins which these dies would have produced, Mr. Grierson concluded that they were genuine instruments of the Venetian mint and were used for striking ducats of Alvise IV Mocenigo (1763-70). This opinion must be discarded, for a similar pair of dies was in the possession of Signor Tommaso Bertelè of Rome, who obtained it in the bazaar at Istanbul and sent a description and cast to Mr. Grierson for publication (PLATE XVI, 5). This pair of dies, which would strike ducats of the same design but of a slightly different pattern from the ones found in Crete, having four pegs instead of two, but was clearly intended to be used in the same way.]

⁶² "Pegged Venetian coin dies," *Ibid.*, 99-105.

KEY TO THE PLATES

The coins are ducats, and are in the ANS (Ives collection) unless the contrary is stated. In a few cases I have failed to trace the source of Dr. Ives' illustrations.

- I. 1. VENICE. Giovanni III Corner (1709-22). Ten-ducat piece. 34.85 g.
2. RHODES. Adrien de Wignacourt (1690-97). Four-ducat piece. 13.82 g.
- II. 1. VENICE. Giovanni Dandolo (1280-89). 3.50 g.
2. VENICE. Andrea Dandolo (1344-54). 3.50 g.
- III. 1. VENICE. Antonio Venier (1382-1400). 3.52 g.
2. VENICE. Andrea Vendramin (1476-78). 3.45 g.
- IV. 1. VENICE. Leonardo Loredan (1501-21). 3.49 g.
2. VENICE. Marcantonio Trevisan (1553-54). 3.50 g.
- V. 1. VENICE. Pasquale Cicogna (1585-95). 3.49 g. With Arabic counterstamp *صاحبه*, *saḥiḥ*, "genuine."
2. VENICE. Carlo Contarini (1655-56). 3.45 g.
- VI. 1. VENICE. Francesco Morosini (1688-94). 3.46 g.
2. VENICE. Emperor Francis II (1797-1805). 3.46 g.
- VII. 1. ROME. Senate. ANS (Scoville bequest). 3.51 g.
2. ROME. Senate. 3.49 g.
3. ROME. Senate. 3.50 g.
4. ROME. Senate. (with Condulmerio shield). 3.50 g.
- VIII. 1. GENOA. Mid 16th century. *CNI*, III, pl. X, 12 (former King of Italy's coll.). 3.40 g.
2. MANTUA. Ferdinand IV Gonzaga (1612-26). Venice, Museo Correr (Racc. Papadopoli, No. 4049). 3.78 g. (silver).
3. SAVOY. Amadeus VIII (1416-39). *CNI*, I, pl. IV, 17 (former King of Italy's Coll.). 3.50 g.
4. ROME. Paul II (1464-71). ANS (Scoville bequest). 3.48 g.
5. DOMBES. Anne Marie Louise de Montpensier (1650-93). 3.41 g.
6. ORANGE. William Henry (1650-72, 1679-86). 3.35 g.
7. FLORENCE. 1805. 3.45 g.
8. FLORENCE. Forgery of 1805 piece. British Museum. 3.49 g.

- IX. A. RHODES. Dieudonné de Gozon (1346-53). Venice, Museo Corr (Racc. Papadopoli, No. 15643). 3.51 g.
 B. RHODES. Antoine Fluvian (1421-37). Furse, p. 76 (from form King of Italy's Coll.).
 C. RHODES. Jacques de Milly (1454-61). Not located.
 D. RHODES. Pierre d'Aubusson (1476-1503). 3.50 g.
 E. RHODES. Émery d'Amboise (1503-12). 3.46 g.
- X. A. MALTA. Jean d'Homèdes (1536-53). 3.40 g.
 B. MALTA. Alofius de Wignacourt (1601-22). ANS (Scoville bequest). 3.37 g.
 C. MALTA. Antoine de Paule (1623-36). British Museum. 3.35 g.
 D. MALTA. Adrien de Wignacourt (1690-97). 3.45 g.
 E. MALTA. Antoine Manoël de Vilhena (1722-36). 3.42 g.
- XI. 1. CHIOS. Tommaso di Campofregoso (1415-21). 2.2 g. (*sic.*) Base gold.
 2. CHIOS. Filippo Maria Visconti (1421-36). 3.47 g. Base gold.
 3. CHIOS. Pietro di Campofregoso (1450-58). Gneccchi sale cat. Part III (Frankfurt; Hamburger, 12 January 1903), no. 5134.
 4. CHIOS. Charles VII of France (1458-61). *Ibid.*, no. 5135.
 5. CHIOS. Leonardo Loredan, doge of Venice (1501-21). Martini sale cat., Part I (Lugano: R. Ratto, 30 January 1929), no. 830.
- XII. 1. (?) ACHAIA. Robert of Anjou (1346-64). Schlumberger, pl. XII, 3.
 2. MYTILENE. Giacomo Gattilusio (1376-96). Ruchat sale cat., Part (Rome: Santamaria, 13 June 1921), no. 756.
 3. MYTILENE. Dorino Gattilusio (1400-49). Schlumberger, pl. XV 26.
 4. FOGLIA VECCHIA. Dorino Gattilusio (1400-49). *Ibid.*, pl. XVII, 5.
 5. PERA. Filippo Maria Visconti, duke of Milan (1421-36). *Ibid.* pl. XVII, 21.
 6. PERA. Tommaso di Campofregoso, doge of Genoa (1436-42). *Ibid.* pl. XVII, 22.
- XIII. ANONYMOUS LEVANTINE IMITATIONS.
 1. 3.47 g. 5. 2.95 g.
 2. 3.38 g. (silver) 6. 3.47 g.
 3. 3.35 g. 7. 3.44 g.
 4. 3.30 g. 8. ANS (from Cyprus). 3.75 g. Very pale gold
- XIV. INDIAN IMITATIONS.
 1. BM. 1.86 g.
 2. 1.10 g. (silver)
 3. Oxford, Ashmolean. 1.91 g.
 4. BM. 1.32 g.

5. BM. 2.63 g.

6. 2.6 g.

7. 3.05 g.

XV. GILT COPPER DUCAT TOKENS.

1. 2.89 g.

2. 2.25 g.

3. 2.47 g.

4. 1.55 g.

XVI. DIES FOR DUCAT IMITATIONS.

1. *Indian Antiquary*, II (1873), 213.

2. See *NC*, 1952, p. 113.

3. ANS.

4. Impression of no. 3.

5. T. Bertelè coll.

PLATES

I



I



2

MULTIPLE DUCATS

II

Giovanni Dandolo
1280-89
Pietro Gradenigo
1289-1310
Marino Zorzi
1310-11
Giovanni Soranzo
1311-27



Francesco Dandolo
1328-1339
Bartolomeo Gradenigo
1339-42
Andrea Dandolo
1344-54
Marino Falier
1354-55
Giovanni Gradenigo
1355-56
Giovanni Dolfin
1356-61
Lorenzo Celsi
1361-65
Marco Corner
1365-67
Andrea Contarini
1367-82
Michele Morosini
1382



VENETIAN DUCATS, 12

Antonio Venier
1382-1400
Michele Steno
1400-13
Tomaso Mocenigo
1413-22
Francesco Foscari
1423-57
Pasquale Malipiero
1457-62
Cristoforo Moro
1462-71
Nicolò Tron
1471-73
Nicolò Marcello
1473-74
Pietro Mocenigo
1474-76



Obv. DV✠. This type evolves slowly, beginning as a square, placed diamond-wise, with four circular depressions.



Andrea Vendramin
1476-78
Giovanni Mocenigo
1478-85
Marco Barbarigo
1485-86
Agostino Barbarigo
1486-1501



Obv. Pointed cap on doge. On Andrea Vendramin and Marco Barbarigo the legend runs below the kneeling doge.



VENETIAN DUCATS, 1382-1501

Leonardo Loredan
1501-21
Antonio Grimani
1521-23
Andrea Gritti
1523-39



Rev. Nimbus and feet
entirely within oval. 9
or 10 stars, with one
above book.

Pietro Lando	1539-45
Francesco Donà	1545-53
Marcantonio Trevisan	1553-54
Francesco Venier	1554-56
Lorenzo Priuli	1556-59
Gerolamo Priuli	1559-67
Pietro Loredan	1567-70
Alvise I Mocenigo	1570-77
Sebastiano Venier	1577-78
Nicolò da Ponte	1578-85



Obv. DVX. Roman lettering, only one hand on staff, small nimbus on Saint. Flag on staff reduced to pennant or absent.



Rev. Small nimbus on
Saint. Inscription nearly
or completely encircles
oval. 12 stars.

Digitized by Google

Original from
UNIVERSITY OF CALIFORNIA

Pasquale Cicogna
1585-95
Marino Grimani
1595-1606
Leonardo Donà
1606-12
Marcantonio Memmo
1612-15
Giovanni Bembo
1615-18
Nicolò Donà
1618
Antonio Priuli
1618-23
Francesco Contarini
1623-24



Rev. 15-19 stars, one
below figure of Christ.



Giovanni I Corner
1625-29
Nicolò Contarini
1630-31
Francesco Erizzo
1631-46
Francesco Molin
1646-55
Carlo Contarini
1655-56
Francesco Corner
1656
Bertucci Valier
1656-58
Giovanni Pesaro
1658-59
Domenico Contarini
1659-74



Rev. Sixteen stars, with
one above and one below
figure of Christ. In-
scription ends DVCA.



VENETIAN DUCATS, 1585-1674

VI

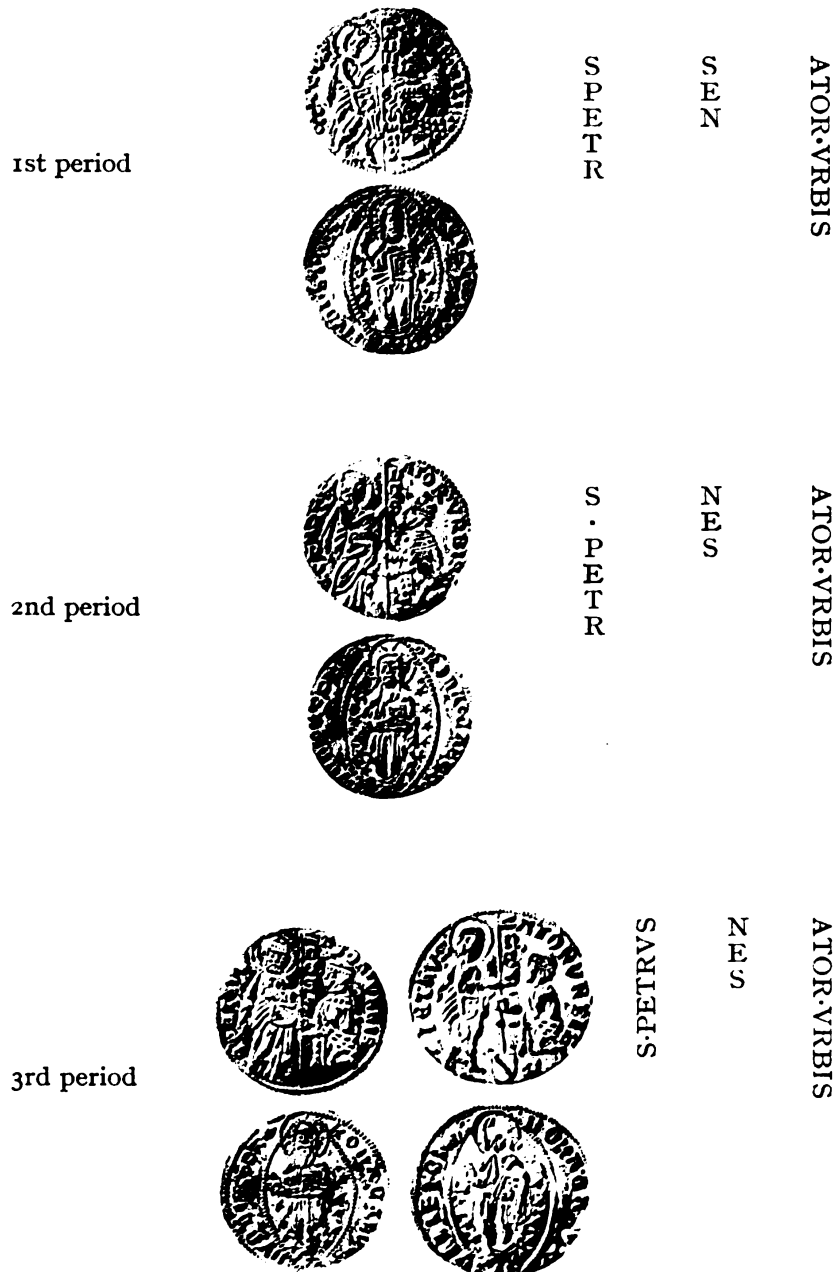
Nicolò Sagredo
1675-76
Alvise Contarini
1676-84
Marcantonio Giustinian
1684-88
Francesco Morosini
1688-94
Silvestro Valier
1694-1700
Alvise II Mocenigo
1700-09
Giovanni III Corner
1709-22
Alvise III Mocenigo
1722-32
Carlo Ruzzini
1732-35
Alvise Pisani
1735-41
Pietro Grimani
1741-52
Francesco Loredan
1752-62
Marco Foscarini
1762-63
Alvise IV Mocenigo
1763-78
Paolo Renier
1779-89
Lodovico Manin
1789-97
Francis II
1797-1805
Francis I
1815-35



Obv. Staff ends in cross

VENETIAN DUCATS, 1675-c. 1840

VII



DUCATS OF THE ROMAN SENATE

VIII



1



2



3



4



5



6



7



8

OTHER WESTERN EUROPEAN IMITATIONS



GRAND MASTERS

An asterisk indicates those for whom ducats are known. The letters refer to the types employed.

Hélion de Villeneuve (1319-46)

*Dieudonné de Gozon (1346-53) A

*Pierre de Cornillan (1354-55) A

Roger de Pins (1355-65)

Raymond de Bérenger (1365-74)

Robert de Juilliac (1374-76)

Jean Ferdinand d'Hérédia
(1376-96)

Philibert de Naillac (1396-1421)

*Antoine Fluvian (1421-37) B, C

Jean de Lastic (1437-54)

*Jacques de Milly (1454-61) C

Pierre Raymond Zacosta (1461-67)

*Jean Ursino (1467-76) D

*Pierre d'Aubusson (1476-1503) D

*Emery d'Amboise (1503-12) E

Guy de Blanchefort (1512-13)

*Fabrice del Carretto (1513-21) E

*Philippe Villiers de l'Isle d'Adam
(1521-34) E

(1521-22 at Rhodes, 1530-34
at Malta)



DUCATS OF RHODES

GRAND MASTERS

An asterisk indicates those for whom ducats are known. The letters refer to the types employed.

*Pierre del Ponte (1534-35) A, but without date

Didier de Saint Jaille (1535-36)

*Jean d'Homèdes (1536-53) A

Claude de la Sengle (1553-57)

*Jean de la Vallette-Parisot (1557-68) B

*Pierre del Monte (1568-72) B

*Jean de la Cassière (1572-81) B

*Hugues de Loubenx Verdalla (1582-95) B

*Martin Garzès (1596-1601) B

*Alofius de Wignacourt (1601-22) B

Ludovic Mendez de Vasconcellos (1622-23)

*Antoine de Paule (1623-36) C

*Jean Paul Lascaris-Castellar (1636-57) C

Martin de Redin (1657-60)

Annet de Clermont-Gessan (1660)

Raphael Cotoner (1660-63)

Nicolas Cotoner (1663-80)

*Grégoire Caraffa (1680-90) D

*Adrien de Wignacourt (1690-97) D

*Raymond Perellos y Roccaful (1697-1720) E

*Marc Antoine Zondadari (1720-22) E

*Antoine Manoël de Vilhena (1722-36) E

DUCATS C

Tommaso di Campofregoso
(1415-21)



1

Filippo Maria Visconti, duke of
Milan (1421-36)



2

Tommaso di Campofregoso (again,
1436-42)
Raffaele Adorno (1443-47)
Giano di Campofregoso (1447)
Lodovico di Campofregoso
(1447-50)
Pietro di Campofregoso (1450-58)



3

Charles VII of France as lord of
Genoa (1458-61)



4

Leonardo Loredan, doge of Venice
(1501-21). Ducat struck for Chios



5

DUCATS OF CHIOS

XII

Achaia

(?) Robert of Anjou (1346-64)

Mytilene
under the Gattilusi

Giacomo Gattiluso (1376-96)

Francesco II Gattiluso
(1396-1400)

Dorino Gattiluso (1400-49)
Domenico Gattiluso (1449-59)
Niccolò Gattiluso (1459-62)

Foglia Vecchia

Dorino Gattiluso of Mytilene
(1400-49)

Pera

Filippo Maria Visconti
duke of Milan
(1421-36)

Tommaso de Campofregoso,
doge of Genoa
(1436-42)

DUCATS OF VARIOUS EASTERN M



1



2



3



4



5



6



7



8

LEVANTINE IMITATIONS

XIV



1



2



3



4



5



6



7



INDIAN IMITATIONS



1



2



3



4

GILT COPPER DUCAT TOKENS



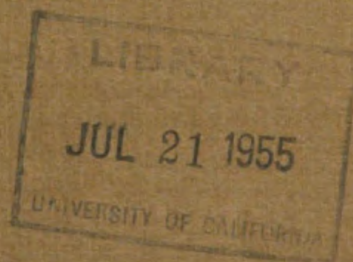
DIES FOR DUCAT IMITATIONS

Lit
NUMISMATIC NOTES AND MONOGRAPHS

No. 129

CHEMICAL COMPOSITION OF PARTHIAN COINS

By EARLE R. CALEY



THE AMERICAN NUMISMATIC SOCIETY

NEW YORK

1955

THE AMERICAN NUMISMATIC SOCIETY

Founded 1858 • Incorporated 1865

BROADWAY BETWEEN 155TH & 156TH STREETS
NEW YORK 32, N. Y.

PURPOSES: The Society was founded for the collection and preservation of coins and medals and for the investigation of their history and other subjects connected therewith.

MEMBERSHIP: Applications for membership are welcomed from all interested in numismatics. Inquiries regarding membership should be addressed to the Secretary of the Society.

DUES: The annual dues for an Associate Membership are \$7.50. Issues of the *Notes and Monographs*, *Museum Notes*, *Hispanic Numismatic Series*, and *Numismatic Literature* are distributed to all members.

PUBLICATIONS: The *Numismatic Notes and Monographs* consist of separately issued papers, each on a single topic, of which two to four numbers appear each year. *The American Numismatic Society Museum Notes* is a publication, irregular in appearance, consisting of brief notes and papers, principally on items in the Society's collections. *Numismatic Literature* is a quarterly listing current numismatic publications with abstracts of their content. *Numismatic Studies* is a series which accommodates works of full book length. The *Hispanic Numismatic Series*, published in co-operation with the Hispanic Society of America, consists of publications devoted to the coinage of the Iberian Peninsula, and is based on the collections of the Hispanic Society.

MUSEUM: The Society maintains a museum located in uptown Manhattan, New York City, which houses its offices, collections and library. Collections embrace coins of all periods from their inception to modern times, medals and decorations. Selections from its cabinets are on display in an exhibition. The library, consisting of about 15,000 volumes, covers all branches of numismatics.

The Museum is open to Members and the public on Tuesdays, Wednesdays, Thursdays, Fridays and Saturdays. It is closed on Sundays and Mondays and the following holidays: New Year's Day, Lincoln's Birthday, Washington's Birthday, Memorial Day, Independence Day, Election Day, Thanksgiving Day and Christmas Day. The hours of the Library are from 9 A.M. to 5 P.M. The public exhibition is open from 2 to 5 P.M.

NUMISMATIC NOTES AND MONOGRAPHS

Number 129

NUMISMATIC NOTES AND MONOGRAPHS

is devoted to essays and treatises on subjects relating
to coins, paper money, medals and decorations.

PUBLICATION COMMITTEE

A. CARSON SIMPSON, *Chairman*

ALFRED R. BELLINGER

AGNES BALDWIN BRETT

THOMAS O. MABBOTT

THEODOR E. MOMMSEN

SAWYER MCA. MOSSER, *Editor*

Chemical Composition of Parthian Coins

By EARLE R. CALEY



THE AMERICAN NUMISMATIC SOCIETY
NEW YORK
1955

**ALL RIGHTS RESERVED BY
THE AMERICAN NUMISMATIC SOCIETY**

**PRINTED IN GERMANY
AT J. J. AUGUSTIN • GLÜCKSTADT**

CONTENTS

I. INTRODUCTION	I
II. PREVIOUS STUDIES	2
III. SOURCES AND IDENTIFICATION OF THE COINS	4
IV. ANALYSTS AND METHODS OF ANALYSIS	6
V. RESULTS OF CHEMICAL ANALYSES	9
VI. THEORY OF DEBASEMENT OF THE DRACHMS OF ORODES I ..	22
VII. FINENESS AND WEIGHT OF PARTHIAN SILVER COINS	32
VIII. SPECIFIC GRAVITY MEASUREMENTS	41
IX. SPECIFIC GRAVITY AND FINENESS OF COINS FROM HOARD ..	75
X. RECOMMENDED GENERAL PROCEDURE FOR THE ESTIMATION OF THE FINENESS OF ANCIENT SILVER COINS BY MEANS OF SPECIFIC GRAVITY MEASUREMENTS	94
ILLUSTRATIONS (Plates I, II, III).....	102

I. INTRODUCTION

The chemical composition of Parthian coins should be just as interesting and significant to the numismatist as the chemical composition of other ancient coins, and perhaps more so, as the coins of the Parthian kings constitute the chief archaeological remains of their empire, whereas an abundance of other kinds of remains have survived most of the other chief empires of the past. Any information that may be gleaned from the chemical investigation of Parthian coins is not only a contribution to the obscure numismatic history of this empire, but may also be a contribution to its still more obscure economic history.

As a somewhat incidental part of a general investigation of the chemical composition of ancient objects, various Parthian coins have been analyzed in the author's laboratory at various times in the past fifteen years. Although the analyses are not very many in number they are fairly representative, and it seems worthwhile to summarize and publish them at this time.

If the amount of published information is a true index of what has been done, very little attention, indeed, has been previously paid to the composition of Parthian coins, and, as far as the author has been able to determine, no chemical analyses were made prior to those reported here. The present essay may be considered an original introduction to the subject, but, since it is only an introduction, the various conclusions and interpretations based on the analyses are not intended to be final. It is the hope of the author, however, that the present essay will serve as a sound foundation for any future investigations of the chemical composition of Parthian coins. The critical study of the relationship between the fineness and specific gravity of Parthian silver coins in the latter part of the essay should be of interest as indicating the reliability of estimations of the fineness of ancient silver coins in general from specific gravity measurements.

II. PREVIOUS STUDIES

Prior to the analyses here reported, only sixteen Parthian coins appear to have been investigated chemically in any way, and all these were silver coins that were tested by fire assay for their silver and gold content only. The results of these assays are shown in Table I. Unfortunately, there is no way to check the correctness of the attributions of these coins. However, the results indicate that the earliest coins contain the highest proportion of silver, and that later coins, leaving out of consideration the one late tetradrachm, contain moderately high amounts. Thus there is no indication of any serious or progressive debasement in this series of Parthian drachms such as occurs in the series of denarii of the Roman Empire. These results also indicate that individual coins of the same rulers differ considerably from each other in fineness. The proportions of gold in the coins, though high from the standpoint of modern silver coinage practice,

TABLE I
ASSAYS OF PARTHIAN SILVER COINS

<i>No.</i>	<i>Ruler</i>	<i>Date</i>	<i>Fineness</i>	
			<i>Silver</i>	<i>Gold</i>
1	Arsaces I (?)	250-248 (?) B.C.	946	
2	Mithradates I	171-138 (?) B.C.	923	2
3	Mithradates I	171-138 (?) B.C.	899	5
4	Mithradates I	171-138 (?) B.C.	892	2
5	Phraates II	138-128/127 B.C.	709	3
6	Artabanus II	88-77 B.C.	854	1
7	Artabanus II	88-77 B.C.	728	2
8	Tiradates II (?)	26 B.C.	611	2
9	Orodes II	4-6 (?) A.D.	798	2
10	Orodes II	4-6 (?) A.D.	622	3
11	Gotarzes	40/41-51 A.D.	805	3
12	Gotarzes	40/41-51 A.D.	755	2
13	Mithradates IV	130-147 (?) A.D.	749	4
14	Volagases III	185 A.D.	334	1
15	Volagases IV	191-207/208 A.D.	779	3
16	Artabanus V	213-227 (?) A.D.	746	4

are similar to those in many other types of ancient silver coins. The degree to which these results are in accord with the new results here presented will be apparent from some of the subsequent tables.

Notes to Table I

- a. No. 1 was assayed at the Prussian mint and the result was first published by A. von Rauch in *Zeitschrift für Numismatik*, 1 (1874), p. 37. This coin was attributed by von Rauch to Arsaces I, but the correctness of this attribution is very much in doubt, since it is uncertain that this ruler issued coins, and such specimens as have been attributed to him are very rare. Possibly the attribution was based on the single word ΑΡΣΑΚΟΥ on the coin, an inscription that occurs on the coins of Tiradates I (248/247–211/210 B.C.) and his son, Arsaces (210–191 B.C.). At any rate, this coin appears to be the earliest in the above series.
- b. The other coins were assayed at the Austrian mint and the results were first published by F. Imhoof-Blumer in his *Monnaies Grecques* (Amsterdam, 1883), p. 474. No. 13 is listed by Imhoof-Blumer as a coin of Mithradates V and No. 15 as a coin of Volagases VI, but the corrections of Hammer in his *Der Feingehalt der griechischen und römischen Münzen* (Diss. Tübingen, 1906), p. 87, are here adopted. The attributions and dates are in accord with those given by B. V. Head in *Historia Numorum* (Oxford, 1911), pp. 818–822. A question mark indicates some uncertainty in attribution or date.
- c. All these coins were drachms except No. 14 which was a tetradrachm. This coin was attributed by Imhoof-Blumer to Volagases IV, but since it bore the date 497 in the Seleucid Era, this places it in the reign of Volagases III according to the system of attribution here followed.

III. SOURCES AND IDENTIFICATION OF THE COINS

With the exception of most of the drachms of Orodes I, the coins for this investigation were purchased by the author from dealers here and abroad at various times. Nearly all the drachms of Orodes I came from a large hoard, part of which is now in the numismatic collection of Princeton University.

According to information kindly supplied by Dr. Louis C. West, Curator of Coins and Medals, Princeton University Library, this hoard, estimated to have contained about 600 coins, was dug up in a small village near Ahar, 75 miles northeast of Tabriz, Iran, and was unearthed by a native worker digging a foundation for a house in the village. The hoard was found at a depth of 8 to 10 feet in a pot of black earthenware, which was broken when the coins were found. The exact date of the discovery is not known with certainty, but it is believed to have been about November, 1923. Early in 1924 this entire hoard was brought to Dr. J. Christy Wilson, then of the American Mission, Tabriz, who purchased something less than half of it. The examples he selected were representative of all the different coins in the hoard. A high proportion of the coins were of Orodes I, the others being coins of near predecessors of Orodes. This selection of coins from the hoard was brought back to the United States by Dr. Wilson, who sold most of the coins to the Princeton University Library. The number thus sold is not known with certainty, but it was probably about 200. Another large part of this hoard was bought by a representative of the Near East Relief in Tabriz, and he sold it to a New York dealer, who in turn sold the coins to various collectors. This part of the hoard numbered over 200 coins. The remainder of the hoard was sold to various people in Iran. The largest intact lot of coins from the hoard, and apparently also the most representative one, is therefore at Princeton. According to figures given to the author about 18 years ago by Professor Shirley H. Weber, then of Princeton University, the lot at Princeton consisted at that time of 5 coins of Artabanus II, 2 of Phraates III, and 2 of either Phraates III or the Unknown King, all the remainder being coins of Orodes I, of which

there were 178. It is probable that some of those of Orodes had already been sold as duplicates. At the request of Professor Weber this lot of coins was cleaned electrolytically by the author in order to remove the spots and patches of greenish corrosion products that were present on all of them. All the coins prior to Orodes I and 31 of the best of this ruler were then placed in the collection of the university and the remainder were classed as duplicates. Several months after these coins were cleaned the author determined the specific gravities of 144 of these duplicates, and 10 of the poorest ones were given to him for chemical analysis.

The British Museum *Catalogue of the Coins of Parthia* (London, 1903), and Head's *Historia Numorum* (London, 1911), were used as the principal authorities for the identification of all the coins that were analyzed, due consideration being given to the uncertainties that still exists as to the proper attribution and dating of certain of the coins.

IV. ANALYSTS AND METHODS OF ANALYSIS

The author analyzed 6 of the drachms of Orodes I that came from the hoard; all the other silver and bronze Parthian coins were analyzed under his direction by Mr. Charles D. Oviatt, at present Professor of Chemistry at Tarkio College, Tarkio, Missouri. The work of Mr. Oviatt was in part supported by a grant from the Graduate School of The Ohio State University. For purposes of comparison, analyses of a few other ancient coins were made by Mr. Wallace H. Deebel, a graduate student in chemistry at The Ohio State University, under the direction of the author.

Before being analyzed, the specific gravity of each of the silver coins was measured by the method of Archimedes. The coins were next filed smooth and the specific gravity of each blank was also measured by the same method. The blanks were then divided into samples of suitable size for analysis. The specific gravities of the bronze coins were not measured, though samples for analysis were prepared in the same way.

For the analysis of the silver coins, accurately weighed samples of about a gram were treated with nitric acid for the separation of the gold and tin from the other metals. The ignited and weighed residue from the nitric acid treatment was extracted with cold, dilute aqua regia to dissolve the gold, and the resultant solution was diluted and treated with either ferrous sulfate or oxalic acid to precipitate the gold. This gold was then collected on filter paper, ignited, and weighed. By subtracting the weight of the gold from the weight of the residue, the weight of stannic oxide was obtained, from which the weight of the tin was calculated. In some analyses, as a check, the weight of the stannic oxide was also measured directly. The filtrate from the separation of the gold and tin was treated with hydrochloric acid to precipitate silver as the chloride. The silver chloride was collected in a weighed filter crucible, and after drying and weighing, the weight of the added silver chloride was found, from which the weight of silver was calculated. The filtrate from the separation of the silver was treated with sulfuric acid, and the solution was evaporated until

fumes of sulfur trioxide appeared. After cooling, the residue was treated with water, and the lead sulfate was collected in a filter crucible, dried, and weighed. Copper was determined by electrolysis in the filtrate from the separation of the lead, and from the small amount of lead dioxide deposited on the anode and the previous weight of lead sulfate, the total lead content was found. The filtrate from the separation of the lead and copper was evaporated to small volume and treated with ammonium hydroxide solution to precipitate the iron. The precipitate was collected on filter paper, and ignited and weighed in a crucible, and the iron content was calculated from the weight of the precipitate. In the filtrate from the separation of the iron, nickel was precipitated with dimethylglyoxime. The precipitate was collected in a glass filter crucible, dried, and weighed, and from the weight of this precipitate the nickel content was calculated. The filtrate from the separation of the nickel was treated with nitric acid to remove organic matter and examined for the presence of zinc by adding phosphate. Zinc was found in only one coin, and for this determination the precipitate of zinc ammonium phosphate was collected in a filter crucible, dried, and weighed, the amount of zinc being calculated from the weight of the precipitate. The coins were also examined for the presence of arsenic and sulfur, but only negative results were obtained.

The procedure for the analysis of the bronze coins was similar except that the steps for the determination of gold and silver were omitted, neither being present in appreciable amount in any of these coins. Sulfur was found to be absent, but arsenic was present in all but one. For the determination of the arsenic a sample was first dissolved in concentrated nitric acid, the solution was evaporated to dryness, and the residue was baked to decompose the nitrates. This baked residue was dissolved in concentrated hydrochloric acid, and the hydrochloric acid solution, after adding an excess of ferrous sulfate, was distilled. In the distillate, properly diluted, the arsenic was precipitated as arsenious sulfide with hydrogen sulfide. The precipitate was collected in a filter crucible, washed first with water, next with carbon disulfide, and finally with ethyl alcohol. It was then dried and weighed, and the amount of arsenic was calculated from the weight of the dried precipitate.

This outline of the analytical scheme, from which many manipulative details have been omitted for the sake of brevity, is intended mainly to indicate the nature of the methods so that their validity may be judged. Where sufficient material was available, duplicate determinations of each metal were made, and the results were averaged to give the figures shown in the several tables. The closeness of the duplicate determinations to each other, and the closeness of the summations to 100% as shown in these tables, is a good indication, at least, of the generally satisfactory nature of these analytical methods and of the experimental manipulations.

V. RESULTS OF CHEMICAL ANALYSES

The results of the analyses of twenty-two drachms are shown in Table II. On comparing the percentages of silver given in this table with the figures for the fineness of Parthian drachms given in Table I some interesting similarities and differences are apparent. Both groups of results indicate that only in the early coins of this Parthian series is the silver content of the coins really high, and that in most later coins it falls considerably below this high standard. Though the figures of Table I indicate that it does not fall below 60%, the new results of Table II show clearly that it may fall nearly as low as 40%.

TABLE II

ANALYSES OF PARTHIAN DRACHMS

No.	Silver %	Gold %	Copper %	Tin %	Lead %	Iron %	Nickel %	Zinc %	Total %
1	94.17	0.11	5.02	0.26	0.37	0.05	0.05	none	100.03
2	92.86	0.30	5.81	0.08	0.85	0.04	0.03	none	99.97
3	67.88	0.27	29.33	1.54	0.92	0.04	none	none	99.98
4	90.57	0.27	8.36	0.08	0.63	0.03	none	none	99.94
5	75.57	0.32	22.64	0.66	0.79	trace	0.02	none	100.00
6	74.80	0.29	23.80	0.01	0.87	0.05	0.01	trace	99.83
7	74.37	0.37	23.94	0.41	0.84	0.03	0.04	none	100.00
8	74.17	0.33	23.54	0.43	1.40	trace	0.02	none	99.89
9	69.77	0.42	27.74	0.75	1.15	0.02	0.02	0.10	99.97
10	66.83	0.38	31.28	0.47	1.01	none	0.02	trace	99.99
11	65.16	0.28	32.15	1.06	1.23	0.02	0.04	none	99.94
12	58.19	0.53	37.29	1.26	2.65	0.02	0.03	none	99.97
13	50.97	0.35	43.97	2.35	2.34	0.03	0.02	none	100.03
14	47.29	0.43	49.10	1.83	1.41	trace	0.03	none	100.09
15	46.35	0.18	49.08	3.56	0.61	trace	0.05	none	99.83
16	43.10	0.33	52.26	2.64	1.51	0.05	0.04	none	99.93
17	41.84	0.34	51.92	3.44	2.48	0.04	0.02	none	100.08
18	76.87	0.38	21.75	0.34	0.64	0.04	none	none	100.02
19	74.30	0.27	24.42	0.27	0.54	0.07	none	none	99.87
20	73.33	0.35	24.16	1.36	0.86	0.01	none	none	100.07
21	77.00	0.46	19.73	1.28	0.86	trace	0.03	none	99.36
22	52.05	0.21	44.52	1.16	1.41	none	0.03	none	99.38

Attributions and Dates

Nos. 1 and 2. Mithradates I. 171-138 (?) B.C.

No. 3. Sinatruces. 77-70 B.C.

No. 4. Phraates III (?). 70-57 B.C.

Nos. 5 to 17 inclusive. Orodes I. 57-38/37 B.C.

All except Nos. 5, 7, and 10 were from the hoard.

No. 18. Gotarzes. 40/41-51 A.D.

No. 19. Vardanes I. 41/42-45 A.D.

No. 20. Volagases II. 77/78-146/147 A.D.

No. 21. Mithradates IV. 130-147 (?) A.D.

No. 22. Volagases V. 207/208-221/222 (?) A.D.

These new results are in direct contradiction to some general statements that have been made in regard to the fineness of the Parthian silver coinage. For example, Burns¹ states that the high initial standard continued with little alteration down to the end of the Parthian Empire in 227 A.D. However, as far as the present results show, the issue of really base drachms was confined to the reign of a single ruler, Orodes I of the period 57-38/37 B.C. It will be seen that in four of the coins of this ruler that were analyzed the silver content is below 50%. Their average silver content is only 60.65%. This is in marked contrast to the high silver content of 90.57% in a coin (No. 4 of Table II) of an immediate predecessor of Orodes I and to the generally high silver content of the coins of all his predecessors. Evidently a marked debasement of the drachm occurred during the reign of this ruler. The fact that the silver content of the coins of Orodes I is spread over a considerable range is not only a sign of debasement but probably also a sign of progressive debasement during his reign. It is obvious that when no debasement occurs during the reign of a ruler his individual coins selected at random will not only be of high standard but will differ little from each other in fineness, but that if debasement of the coinage begins and continues during a reign such individual coins will differ considerably from each other in silver content. Some illustrative data are shown in Table III. This table is derived from Tables I and II, and shows the range of silver content and average silver content of all Parthian drachms of which two or more of a given ruler have now been assayed or analyzed. It is not

¹ Burns, A. R., *Money and Monetary Policy in Early Times* (New York, 1927), p. 164.

claimed that these figures are very reliable since so few individual coins of each ruler have been investigated. The data based upon only two determinations are especially open to question. However, these are the only such figures possible at present, and they at least appear to give significant indications. It will be seen that the range in the percentages of silver in the five coins of Mithradates I is only 5%, whereas in the 13 coins of Orodes I it is nearly 34%. Then in the 3 coins of Gotarzes the range is again only 5%, with the coins of two of the other rulers in intermediate positions. In the group as a whole a rough inverse relationship exists between range and fineness. Apparently the debasement of the coinage during the reign of Orodes I was followed by a considerable improvement during the reigns of the

TABLE III
RANGE OF SILVER CONTENT AND AVERAGE SILVER CONTENT
OF DRACHMS OF CERTAIN PARTHIAN RULERS

<i>Ruler</i>	<i>Date</i>	<i>No. of Coins</i>	<i>Range in Silver Content %</i>	<i>Average Silver Content %</i>
Mithradates I	171-138 (?) B.C.	5	5.0	91.7
Artabanus II	88-77 B.C.	2	12.6	79.1
Orodes I	57-38/37 B.C.	13	33.7	60.7
Orodes II	4-6 (?) A.D.	2	17.6	71.0
Gotarzes	40/41-51 A.D.	3	5.0	77.6
Mithradates IV	130-147 (?) A.D.	2	2.1	76.0

succeeding rulers, though the original high standard was never again restored. The measurements of the specific gravities of 134 additional drachms of Orodes I given in the latter part of this essay confirm the results of these analyses as showing that serious debasement occurred during the reign of this ruler. Estimations of fineness based on these measurements indicate that the range in silver content is actually somewhat greater than that shown by these analyses.

The percentages of gold shown in Table II are in approximate agreement with the fineness figures of Table I. In the analyses of Table II the average percentage of gold is 0.33, and in the assays of Table I the average gold content in terms of percentage is 0.25. There

is a greater discrepancy in the ratios of gold to silver in the results in the two tables, but this lack of agreement may be due to the difference in the methods of determining the gold. It seems likely that the present results are more accurate. As compared to those in modern silver coins, the proportions of gold in Parthian drachms are very high indeed, but such relatively high proportions of gold are characteristic of ancient silver in general. The gold in these Parthian coins was apparently present as a mere fortuitous impurity that accompanied the silver, and its proportion varied considerably in accordance with the source of the silver and the accidental variations in the metallurgical operations. It seems improbable that ancient metallurgists had any means of removing gold present as impurity in silver, and it is doubtful that they were even aware that their silver contained gold as an impurity.

As the figures of Table II show, copper is the main alloying component in the metal of Parthian drachms. That it was introduced into the coinage alloy as the pure metal is very improbable as will appear from a consideration of the proportions of tin and lead in these coins.

Though the percentages of tin are not high numerically, being above 3% in only 2 coins, they are nevertheless very high for ancient silver. They are generally higher in the debased coins of Orodes I than in the other drachms that were analyzed, especially the earlier ones of high silver content. Tin, when not entirely absent, is usually present in ancient coinage silver to the extent of only a few hundredths or tenths of a percent. In a series of 16 ancient Greek silver coins analyzed by Bibra,² 3 were found to contain a trace of tin, the others none, and in a series of 22 Roman Imperial silver coins, many of them debased, which were analyzed by this same investigator, tin either was absent or was present in a mere trace in 11, and in the others the highest proportion found was 0.71% and the average was only 0.13%. The analyses in Table IV show his results on coins having about the same range of silver content as the drachms of Orodes I. According to the analyses of Bibra, tin is likely to be entirely absent from coins of very high silver content. The first two analyses listed in

² Bibra, E. von, *Ueber alte Eisen- und Silber-Funde* (Nürnberg and Leipzig, 1873), pp. 37, 40, 41.

Table V are illustrative of his results. This absence of tin appears to be confirmed by later analyses of such coins by Elam.³ These analyses are the last four cited in Table V. It is not certain that this analyst actually sought for the presence of tin in these coins, but if it had been present there is small likelihood that it could have escaped notice. The absence of tin from all such coins is what might be expected from its usual absence from deposits of silver ores. In general, then, tin is not normally associated with the silver of ancient coinage alloys, and there is no reason to believe that the Parthian coinage alloys were exceptional in this respect. It seems very probable, therefore, that most of the tin in the Parthian alloys was introduced along with the copper.

Similarly, the percentages of lead shown in Table II, especially in the coins of Orodes I, are unusually high for ancient coinage silver, as may be seen by comparing these percentages with those shown in Tables IV and V. All these percentages are further compared in Table VI, where it will be seen to what degree the proportions of lead in the drachms of Orodes I are abnormally high. Evidently a fairly constant small proportion of lead is almost always present in ancient fine silver, apparently as a residue from the imperfect cupellation of argentiferous lead, but the proportions of lead in the debased drachms of Orodes I are so abnormally high that it seems necessary to conclude that only part of this lead was introduced into the alloy along with the silver and that the rest was introduced along with the copper.

TABLE IV

ANALYSES OF GREEK AND ROMAN SILVER COINS SIMILAR
TO THE COINS OF ORODES I IN FINENESS

<i>Silver</i> %	<i>Gold</i> %	<i>Copper</i> %	<i>Tin</i> %	<i>Lead</i> %	<i>Iron</i> %	<i>Nickel</i> %
73.96	0.25	23.94	none	1.35	trace	none
56.76	1.81	40.63	none	0.75	0.23	trace
54.92	0.15	43.80	0.20	0.75	0.11	0.07
43.97	0.10	55.26	0.21	0.31	trace	0.15
43.41	0.72	54.69	none	trace	0.97	0.21
40.66	0.17	58.70	0.10	0.13	0.24	none

³ Elam, C. F., *Journal of the Institute of Metals*, XLV (1931), p. 60.

TABLE V

ANALYSES OF GREEK SILVER COINS OF VERY HIGH FINENESS

<i>Silver</i> %	<i>Gold</i> %	<i>Copper</i> %	<i>Tin</i> %	<i>Lead</i> %	<i>Iron</i> %	<i>Nickel</i> %
99.48	trace	0.31	none	trace	0.21	none
99.10	trace	none	none	0.85	0.05	none
99.40	trace	none		0.46	trace	none
99.19	0.34	none		0.13	trace	none
99.09	trace	none		0.40	trace	none
99.07	trace	trace		0.43	trace	none

TABLE VI

COMPARISON OF DRACHMS OF ORODES I WITH EARLIER PARTHIAN DRACHMS AND WITH CERTAIN GREEK AND ROMAN COINS IN RESPECT TO SILVER CONTENT, LEAD CONTENT, AND RATIO OF LEAD CONTENT TO SILVER CONTENT

<i>Group</i>	<i>Silver</i> %	<i>Lead</i> %	<i>Ratio of Lead to Silver</i>
Parthian Drachms	Max. = 94.17	Max. = 0.92	Max. = 0.014
Prior to Orodes I	Min. = 67.88	Min. = 0.37	Min. = 0.004
	Av. = 86.37	Av. = 0.69	Av. = 0.008
Drachms of Orodes I	Max. = 75.57	Max. = 2.65	Max. = 0.059
	Min. = 41.84	Min. = 0.61	Min. = 0.011
	Av. = 60.65	Av. = 1.38	Av. = 0.023
Greek and Roman	Max. = 73.96	Max. = 1.85	Max. = 0.025
Coins of Similar	Min. = 40.66	Min. = trace	Min. = 0.000
Fineness	Av. = 52.28	Av. = 0.63	Av. = 0.010
Greek Coins of Very	Max. = 99.48	Max. = 0.85	Max. = 0.009
High Fineness	Min. = 99.07	Min. = trace	Min. = 0.000
	Av. = 99.22	Av. = 0.38	Av. = 0.004

The small percentages of iron shown in the analyses of Table II are probably of little significance, as iron is almost a universal accidental impurity in ancient metals and alloys. However, as shown by the analyses of Table V, the iron content of ancient silver coins of very high fineness is usually very small, so that it might well be that the noticeably larger proportions found in these Parthian drachms were introduced into the alloys along with the copper rather than with the silver. It is still more likely that the small proportions of

nickel shown in the analyses of Table II were introduced with the copper rather than with the silver. In these analyses nickel is invariably present in coins of very high copper content (over 30%) but absent from nearly 40% of the others. Furthermore, the analyses of Table V indicate that nickel is not normally associated with ancient silver, and this same lack of association is apparent from other analyses of ancient silver coins of high fineness. The zinc found in one coin in small proportion and the trace found in two others is in all probability a mere accidental impurity that was introduced along with the copper. Neither arsenic nor sulfur in weighable amounts was found in any of these coins.

The results of the analyses of 7 tetradrachms are shown in Table VII. The most striking difference between these results and the results of the analyses of the drachms shown in Table II is the much lower range of silver content of the tetradrachms. Unfortunately, no tetradrachms prior to the reign of Phraates IV were available for analysis, so that no comparison can yet be made between earlier tetradrachms and drachms as to silver content. It may be that early tetradrachms had a silver content similar to that of early drachms, but it is certain that later tetradrachms had a much lower silver content in general than drachms of the same period. As shown in Table VII, the proportions of silver in the tetradrachms that were analyzed, with the exception of the one tetradrachm of Phraates IV, are all below 50%, and in this one exception the proportion is just slightly over 50%. On the basis of these analyses the alloy used for late tetradrachms must be classed as billon. It is interesting by way of confirmation that the

TABLE VII

ANALYSES OF PARTHIAN TETRADRACHMS

No.	Silver %	Gold %	Copper %	Tin %	Lead %	Iron %	Nickel %	Zinc %	Total %
1	52.24	0.24	46.40	0.08	0.80	0.07	0.04	trace	99.87
2	43.32	0.22	53.11	0.25	0.33	0.06	0.02	none	97.31
3	46.48	0.30	48.82	none	0.33	0.04	none	none	95.97
4	41.70	0.23	57.18	0.08	0.27	0.05	0.05	none	99.56
5	39.80	0.32	58.51	0.58	0.57	0.05	0.07	none	99.90
6	28.29	0.15	68.00	0.28	0.52	none	0.19	none	97.43
7	24.44	none	74.41	0.18	0.19	0.02	0.35	none	99.59

Attributions and Dates

- No. 1. Phraates IV. 38/37-3/2 B.C. Not dated within reign.
- No. 2. Gotarzes. 40/41-51 A.D. Date = 46/47 A.D.
- No. 3. Gotarzes. 40/41-51 A.D. Date = 48/49 A.D.
- No. 4. Gotarzes. 40/41-51 A.D. Date illegible.
- No. 5. Pacorus II. 77/78-109/110 (?) A.D. Date = 79/80 A.D.
- No. 6. Volagases III. 147/148-191 A.D. Date illegible.
- No. 7. Volagases IV. 191-207/208 A.D. Date = 198/199 A.D.

very low silver content of 28.29% found by chemical analysis in a tetradrachm of Volagases III agrees fairly well with the result of the assay of one of this same ruler given in Table I. From the results in Table VII it seems evident that the silver content of the late Parthian tetradrachms decreased progressively with time, which does not appear to be true for the drachms of the same period.

The average proportion of gold found to be present in these tetradrachms is 0.21% as compared with the average of 0.33% for all the drachms of Table II and the same figure of 0.33% for the 5 latest drachms. However, since the gold is in all probability associated wholly with the silver it is better to make a comparison between the ratios of the proportions of gold to silver in the coins of the two denominations. The average of the ratios of gold to silver in the tetradrachms that were analyzed is 0.0050, in all the drachms, 0.0052, and in the 5 latest drachms, 0.0047. The closeness of these ratios shows that the original silver metal that entered into the alloys of the coins of the two denominations had about the same gold content on the average, and this indicates that it was of about the same quality.

Copper is the chief alloying component in the metal of Parthian tetradrachms just as it is in the metal of the drachms, but the lower proportions of tin and lead in the tetradrachms indicate that the copper was introduced into the alloy in a relatively pure state and not in the form of bronze. The average proportion of tin in the tetradrachms that were analyzed is only 0.21% as compared to the average of 1.15% for all the drachms and 0.88% for the 5 latest drachms. The differences in the percentages of lead and in the ratios of lead to silver are shown in Table VIII, where it will be seen that both the percentages and the ratios are lower in the tetradrachms than in the drachms. The full significance of these figures is shown in detail later

in the discussion of the theory of the debasement of Parthian silver coins. No significant difference exists in the proportions of iron in the tetradrachms and the drachms, and this is what would be expected from its presence as a mere accidental impurity. Though the proportions of nickel in the tetradrachms of higher fineness (Nos. 1-4 on Table VII) are similar to those in the drachms, the proportion of this metal in the other tetradrachms is much higher, particularly in the last two. This is further indication that the nickel in Parthian silver coinage alloys is associated with the copper.

It will be noted from Table VII that the summations of the individual percentages obtained on the analysis of the tetradrachms are generally lower than the summations of the individual percentages for the drachms as shown in Table II. In fact, the summations of the analytical figures for three of the tetradrachms does not even reach 99%. This is because of the presence of certain nonmetallic elements, namely, chlorine and oxygen, that were not determined by the analyst. These were present in the form of certain corrosion products, principally silver chloride and cuprous oxide, distributed throughout the metal of these coins. It might well be expected that corrosion would have proceeded to a greater extent in the tetradrachms than in the drachms because of the general difference in fineness. However, this does not account for the fact that the summations for certain tetradrachms (Nos. 2 and 3 of Table VII) are much lower than the summations for certain drachms (Nos. 14 to 17 of Table II) of about the same fineness. The metal of the tetradrachms was visibly less homogeneous than that of the drachms, which would account for the greater degree of corrosion. This lack of homogeneity was shown also by the poorer agreement of the duplicate determinations in the course of the analysis of the tetradrachms. Possibly this observed lack of homogeneity was simply the result of a greater degree of corrosion, but it seems more probable that it was due to an original lack of homogeneity in the metal of the tetradrachms. Possibly this lack of homogeneity in the metal was due to a lower degree of technical skill exercised in minting the tetradrachms or because it was less easy to form homogeneous flans of large size. At any rate there is a considerable difference in the homogeneity of the coins of the two denominations, which at least suggests that they may have been struck at different mints.

TABLE VIII

COMPARISON OF DRACHMS WITH TETRADrachms IN RESPECT TO SILVER CONTENT, LEAD CONTENT, AND RATIO OF LEAD CONTENT TO SILVER CONTENT

<i>Group</i>	<i>Silver %</i>	<i>Lead %</i>	<i>Ratio of Lead to Silver</i>
All Drachms	Max. = 94.17 Min. = 41.84 Av. = 67.61	Max. = 2.65 Min. = 0.37 Av. = 1.14	Max. = 0.059 Min. = 0.004 Av. = 0.019
Drachms After Orodes I	Max. = 77.00 Min. = 52.05 Av. = 70.71	Max. = 1.41 Min. = 0.54 Av. = 0.86	Max. = 0.027 Min. = 0.007 Av. = 0.013
Tetradrachms	Max. = 52.24 Min. = 24.24 Av. = 39.47	Max. = 0.80 Min. = 0.19 Av. = 0.43	Max. = 0.018 Min. = 0.006 Av. = 0.011

The results of the analysis of 12 bronze coins are shown in Table IX. These are apparently the first analyses of any kind of a Parthian bronze object that have been reported. It will be seen that the 2 earliest coins are very similar to each other in composition, and that the 2 coins of Orodes I are also very similar to each other. Larger differences exist between the compositions of the 2 coins of Sinatruces, but they are similar to each other in the proportions of lead they contain, and this clearly groups them together as distinct from the earlier and later coins. Of the 4 coins of Gotarzes, 3 are similar to each other in composition, and all of them are distinctly different from the earlier coins. The 2 very late coins of Artabanus V differ radically in composition. With the exception of these, the bronze coins issued in the same reign have a certain similarity in composition which would seem to indicate that some degree of control and standardization was exercised in the preparation of even the bronze coinage alloys. Possibly the coins of Artabanus V were struck under conditions that precluded any exercise of choice in the selection of the metal for the bronze coins. Because of this possibility, the composition of these coins will not be further considered in the discussion that follows.

TABLE IX

ANALYSES OF PARTHIAN BRONZE COINS

No.	Copper %	Tin %	Lead %	Silver %	Iron %	Nickel %	Arsenic %	Total %
1	88.64	6.72	3.88	none	0.15	0.07	0.26	99.72
2	89.54	6.97	3.18	none	0.09	0.08	0.11	99.97
3	88.31	4.71	6.60	none	0.08	0.18	0.05	99.94
4	83.90	7.24	8.54	none	0.04	0.07	none	99.79
5	82.19	5.17	12.03	none	0.08	0.10	0.24	99.81
6	80.69	6.08	12.65	none	0.04	0.08	0.21	99.79
7	86.93	2.92	9.87	none	none	0.09		99.81
8	73.74	6.42	19.77	none	none	0.07		100.00
9	73.12	5.48	19.98	none	0.04	0.09		98.71
10	74.35	4.29	21.06	trace	none	0.08		99.78
11	83.59	11.33	3.56	trace	0.03	0.05		98.56
12	67.79	7.43	23.50	trace	none	0.07		98.79

Attributions and Dates

No. 1. Mithradates I. 171-138 (?) B.C.

No. 2. Mithradates II. 123-88 B.C.

Nos. 3 and 4. Sinatruces. 77-70 B.C.

Nos. 5 and 6. Orodes I. 57-38/37 B.C.

Nos. 7 to 10 inclusive. Gotarzes. 40/41-51 A.D.

Nos. 11 and 12. Artabanus V. 213-227 (?) A.D.

Though these coins viewed as a whole are not very different in composition, except in lead content, this one difference is very marked. The relationships of the proportions of the main components of the alloys to each other are perhaps more readily apparent from the ratios of the percentages, shown in Table X, than from the percentages themselves. For the coins of Sinatruces, Orodes I, and Gotarzes these ratios were calculated from the average percentage figures for each group. It will be seen that the ratios of the components are very similar in the two earliest coins, and that in the series as a whole there is little difference in the ratio of tin content to copper content. The most striking and significant difference is the progressive increase, beginning with the coins of Sinatruces, in the ratios of lead content to copper content and of lead content to tin content. This same sort of chronological change in these ratios, with the ratio of tin content to copper content remaining relatively constant, has

2*

been previously observed in various series of Greek bronze coins, and has been explained as being the result of the remelting of worn bronze coins of previous issue with lead in order to obtain metal for the issue of new coins.⁴ However, the lead content of these Parthian coins is generally lower than that of contemporaneous bronze coins issued elsewhere in the ancient world, even in localities near Parthia. This is illustrated by the analyses listed in Table XI of a series of coins struck in Syria.⁵ In this one respect, at least, Parthian bronze coins have a composition that is distinctive.

TABLE X

RATIOS OF MAIN COMPONENTS IN PARTHIAN BRONZE COINS

<i>Period</i>	<i>Ratio of Tin to Copper</i>	<i>Ratio of Lead to Copper</i>	<i>Ratio of Lead to Tin</i>
171-138 (?) B.C.	0.076	0.044	0.58
123-88 B.C.	0.078	0.036	0.46
77-70 B.C.	0.070	0.088	1.29
57-38/37 B.C.	0.069	0.152	2.20
40/41-51 A.D.	0.063	0.235	3.71

TABLE XI

ANALYSES OF SYRIAN BRONZE COINS

<i>No.</i>	<i>Copper %</i>	<i>Tin %</i>	<i>Lead %</i>	<i>Iron %</i>	<i>Nickel %</i>	<i>Zinc %</i>	<i>Arsenic %</i>	<i>Sulfur %</i>	<i>Total %</i>
1	88.72	8.54	2.56	0.11	0.04	none	0.04	0.02	100.03
2	90.80	6.52	2.25	0.29	0.02	none	0.02	0.01	99.91
3	80.12	6.18	13.12	0.01	0.03	0.05	0.26	0.17	99.94
4	80.84	5.94	11.84	0.01	0.07	0.03	1.32	none	100.05
5	64.32	4.07	31.70	0.01	none	none	trace	0.01	100.11
6	67.13	7.62	24.90	0.14	0.02	0.01	0.10	none	99.92

Attributions and Dates

No. 1. Antiochus II. 261-246 B.C.

No. 2. Antiochus III. 222-187 B.C.

No. 3. Seleucus IV. 187-175 B.C.

No. 4. Demetrius II. 146-138 B.C.

No. 5. Antiochus VIII. 121 B.C.

No. 6. Antiochus VIII. 114 B.C.

⁴ Caley, E. R., *The Composition of Ancient Greek Bronze Coins* (Philadelphia, 1939).

⁵ From Table XVIII, pp. 92-93, of the work cited in Reference 4.

In view of the apparently systematic chronological increase in the lead content of Parthian bronze coins, there is a distinct possibility that such coins now of uncertain or unknown attribution could be roughly dated by means of chemical analysis, and thus be ascribed to the reigns of certain rulers. In order to do this, however, it would be necessary to make many more analyses of coins of known attribution so as to provide a reliable scale of reference. Furthermore, it would probably not be sufficient to analyze one unknown specimen, but as many as possible so that a reliable average figure would be obtained for comparison with the established averages for already attributed coins.

The percentages of the various impurities listed in Table IX are similar to those generally found in ancient coinage bronze. The nickel content is noticeably higher than in most ancient coinage bronze of the same period, and this may be of some significance as a distinctive characteristic. Though there appears to be some systematic variation in the arsenic content from one reign to another, this is probably fortuitous, as the arsenic content of ancient coinage bronze, like the iron content, usually varies in an erratic manner, thus indicating that both are mere accidental impurities. Arsenic was not determined in the last 6 coins because their small weight did not provide a sufficient sample. The low summations of Nos. 9 and 11 must in part, at least, be ascribed to the presence of oxygen, as these coins were noticeably corroded internally.

VI. THEORY OF THE DEBASEMENT OF THE DRACHMS OF ORODES I

The analytical results of Table II show clearly that some, at least, of the drachms of Orodes I were debased. In the discussion of these analytical results it was shown that part of the lead and virtually all the tin, iron, and nickel were associated with the copper and that these metals were in all probability introduced into the coins along with the copper. Such a mixture in the proportions indicated by the analytical figures would constitute a bronze. Consequently, it may be inferred that the alloy for the debased drachms of Orodes I was manufactured by alloying silver of good quality with bronze. Moreover, the composition of this bronze could be calculated from the figures of Table II providing the composition of this silver were known. Though there seems to be no way to find the exact composition of this silver, certain likely assumptions as to its composition may be postulated. These are:

- A. That it was fine silver of the highest quality known in the ancient period, and that its composition was about the average of the analyses listed in Table V.
- B. That it was Parthian coinage silver of high quality obtained by melting down worn coins of earlier reigns, and that its composition was about the average of Coins 1, 2, and 4 of Table II.
- C. That it was Parthian coinage silver of high quality produced by melting down coins of the reign immediately preceding that of Orodes I, and that its composition was about that of Coin 4 of Table II.

On the basis of each of these three assumptions the composition of of the bronze used in producing the alloy for a typical debased drachm of Orodes I (i.e. No. 13 of Table II) may then be calculated in the following way.

On Assumption A. The average silver and gold content of the fine silver coins of Table V is 99.32%. Gold is counted with the silver in all these calculations since the two are associated. The average

lead content of these coins is 0.38%. Therefore the proportion of this lead in terms of per cent that would have entered into the alloy of Coin 13 by the use of such silver is given by the expression:

$$\frac{50.97 + 0.35}{99.32} \times 0.38 = 0.20\%$$

This figure is then subtracted from the 2.34% of lead found by analysis in Coin 13 to give 2.14% as the amount of lead introduced along with the copper. Because of the high purity of the silver, the percentages of the other metals in Coin 13 remain unaffected, so that the proportions of the components of the bronze are given by the following percentages:

Copper	= 43.97
Tin	= 2.35
Lead	= 2.14
Iron	= 0.03
Nickel	= 0.02
Total	= 48.51

These figures are then prorated to 100% to give the composition of the bronze:

Copper	= $\frac{43.97}{48.51} \times 100$	= 90.64%
Tin	= $\frac{2.35}{48.51} \times 100$	= 4.85%
Lead	= $\frac{2.14}{48.51} \times 100$	= 4.41%
Iron	= $\frac{0.03}{48.51} \times 100$	= 0.06%
Nickel	= $\frac{0.02}{48.51} \times 100$	= 0.04%
Total	=	100.00%

On Assumption B. The average figures for the analysis of Coin 1, 2, and 4 of Table II are as follows:

Silver	= 92.53%
Gold	= 0.23%
Copper	= 6.40%
Tin	= 0.14%
Lead	= 0.62%
Iron	= 0.04%
Nickel	= 0.03%

In the same way as explained for the calculations on the basis of Assumption A, the percentage of lead to be subtracted from the given percentage found in Coin 13 is given by the expression:

$$\frac{50.97 + 0.35}{92.53 + 0.23} \times 0.62 = 0.34\%$$

Similarly, the amount of tin that would have entered into the alloy of Coin 13 by the use of silver of the composition shown by the above average analysis is given by the expression:

$$\frac{50.97 + 0.35}{92.53 + 0.23} \times 0.14 = 0.08\%$$

This figure is then subtracted from the 2.35% of tin found by analysis in Coin 13 to give 2.27% as the amount of tin introduced along with the copper. In the same way the following expressions give the percentages of copper, iron, and nickel, respectively, to be subtracted from the percentages found by analysis:

$$\frac{50.97 + 0.35}{92.53 + 0.23} \times 6.40 = 3.54\%$$

$$\frac{50.97 + 0.35}{92.53 + 0.23} \times 0.04 = 0.02\%$$

$$\frac{50.97 + 0.35}{92.53 + 0.23} \times 0.03 = 0.02\%$$

When these percentages are subtracted from the percentages found by analysis in Coin 13, the proportions of the components of the bronze are given by the following percentages:

Copper	= 40.43
Tin	= 2.27
Lead	= 2.00
Iron	= 0.01
Nickel	= none
Total	= 44.71

In the same way as shown in the calculations under Assumption A, these figures are then prorated to 100% to give the composition of the bronze:

$$\text{Copper} = \frac{40.43}{44.71} \times 100 = 90.43\%$$

$$\text{Tin} = \frac{2.27}{44.71} \times 100 = 5.08\%$$

$$\text{Lead} = \frac{2.00}{44.71} \times 100 = 4.47\%$$

$$\text{Iron} = \frac{0.01}{44.71} \times 100 = 0.02\%$$

$$\text{Nickel} = \text{none}$$

$$\text{Total} = 100.00\%$$

On Assumption C. From the figures for the analysis of Coin 4 and those of Coin 13 the calculations of the composition of the bronze are made in the same way as shown in the calculations for Assumption B. The proportions of the components of the bronze are given by the following percentages:

$$\text{Copper} = 39.25$$

$$\text{Tin} = 2.30$$

$$\text{Lead} = 1.98$$

$$\text{Iron} = 0.01$$

$$\text{Nickel} = 0.02$$

$$\text{Total} = 43.56$$

When these figures are prorated to 100%, the composition of the bronze is found to be as follows:

$$\text{Copper} = 90.10\%$$

$$\text{Tin} = 5.28\%$$

$$\text{Lead} = 4.55\%$$

$$\text{Iron} = 0.02\%$$

$$\text{Nickel} = 0.05\%$$

$$\text{Total} = 100.00\%$$

No allowance is made in these calculations for any preferential loss of the components of the bronze by oxidation or volatilization during the fusion of it with the silver. It seems likely, however, that the

results of the calculations would not have differed materially if allowance had been made for the various small losses that could have occurred in these ways. The results of the above calculations are shown in Table XII along with the results of similar calculations for the four still more debased drachms. It will be seen that the three sets of figures for each coin are similar to each other, in the proportions of main components at least, regardless of which assumption is made as to the composition of the silver that was debased. Hence the exact composition of this silver is, after all, not a matter of great importance for estimating the composition of the bronze. In general, as shown by the closer absolute and relative correspondence of the figures based on the three assumptions, the greater the degree of debasement the less the importance of the exact composition of the

TABLE XII

PROBABLE COMPOSITION OF THE BRONZE USED IN DEBASING THE DRACHMS OF ORODES I CALCULATED ON THREE ASSUMPTIONS AS TO THE COMPOSITION OF THE ALLOY THAT WAS DEBASED

<i>Coin No.</i>	<i>Assumption</i>	<i>Copper %</i>	<i>Tin %</i>	<i>Lead %</i>	<i>Iron %</i>	<i>Nickel %</i>
13	A	90.64	4.85	4.41	0.06	0.04
	B	90.43	5.08	4.47	0.02	none
	C	90.10	5.28	4.55	0.02	0.05
14	A	94.08	3.50	2.36	none	0.06
	B	94.12	3.62	2.22	none	0.04
	C	93.91	3.76	2.27	none	0.06
15	A	92.39	6.70	0.81	none	0.10
	B	92.28	7.02	0.60	0.04	0.06
	C	92.03	7.23	0.60	0.04	0.10
16	A	92.78	4.68	2.38	0.09	0.07
	B	92.73	4.86	2.29	0.06	0.06
	C	92.54	4.98	2.32	0.08	0.08
17	A	89.92	5.96	4.02	0.07	0.03
	B	89.72	6.19	4.03	0.04	0.02
	C	89.49	6.33	4.08	0.06	0.04
All	Av. =	91.81	5.34	2.76	0.04	0.05
16 and 17 only	Av. =	91.20	5.50	3.18	0.07	0.05

silver. Though there are considerable differences in the calculated compositions of the bronze used in the manufacture of the alloys for the individual coins, these compositions viewed as a whole are not radically different. Because of the lesser importance of the exact composition of the silver, and the greater accuracy of the computations, especially as regards the figures for the minor components, the figures calculated for Coins 16 and 17 are probably more reliable than the others. The average figures for these two coins, shown at the bottom of Table XII, may be taken as representative of the probable composition of the bronze that was used in producing the debased silver drachms of Orodes I.

The source of this bronze may have been earlier Parthian bronze coins. It seems significant that the average figures calculated for Coins 16 and 17 are similar to figures for the composition of the bronze coins of Mithradates I and Mithradates II given in Table IX. Bronze of the composition of the bronze coins of Orodes I, either in the form of the coins of this ruler or in the form of bulk metal, evidently could not have been used in producing his debased silver coins. Moreover, it is improbable on the basis of the analytical figures that bronze having the composition of the bronze coins of Sinatruces, or bronze coins of this ruler, could have been used. Only one principal qualitative discrepancy exists between the calculated composition of the bronze used for debasing the silver coins of Orodes I and the actual composition of the two early Parthian bronze coins. This is the presence of arsenic in these coins and its absence from the debased silver coins. However, it is entirely possible that the arsenic in the bronze coins was completely oxidized and volatilized on remelting and that as a consequence none was incorporated in the debased silver.

That bronze in the form of coins, rather than in any other form, was used in debasing silver for the production of drachms of Orodes I is probable. It is the usual practice in mints to obtain much or most of the metal for the issue of new coins by melting down earlier ones, especially if these are badly worn, and at the time of Orodes I it is almost certain that most of the bronze coins of Mithradates I and Mithradates II still in circulation were in poor condition. Furthermore, the bronze coins of these rulers are of larger diameter and greater weight than the bronze coins issued by later rulers, and this

could have been an additional reason for withdrawing these particular coins from circulation and using them as a source of metal.

In Table XIII are shown the results of calculations of the composition of the debased silver that could have been produced by melting bronze of the average composition of the coins of Mithradates I and Mithradates II with silver of the composition of Coin 4 of Table II to produce alloys having the silver content of Coins 16 and 17 of Table II. In making these calculations it was assumed that all the arsenic was volatilized from the bronze, and an allowance was made for a loss of 10% of the tin and lead by preferential oxidation in the process of remelting and alloying. The degree of debasement for Coin 16 is 52.4% and for Coin 17, 53.8%. It will be seen that there is a substantial agreement between the actual and the theoretical figures. On the whole, therefore, it does not appear at all unlikely that the metal for the debased drachms of Orodes I was made by melting down silver coins of his immediate predecessor, or of more than one predecessor, with early Parthian bronze coins.

TABLE XIII

CORRELATION BETWEEN ANALYTICAL FIGURES ON COMPOSITION OF DEBASED DRACHMS OF ORODES I AND THEORETICAL FIGURES

<i>Coin No.</i>	<i>Source of Figures</i>	<i>Silver %</i>	<i>Gold %</i>	<i>Copper %</i>	<i>Tin %</i>	<i>Lead %</i>	<i>Iron %</i>	<i>Nickel %</i>
16	Analysis	43.10	0.33	52.26	2.64	1.15	0.05	0.04
	Calculation	43.10	0.13	52.32	3.32	1.99	0.07	0.04
17	Analysis	41.84	0.34	51.92	3.44	2.48	0.04	0.02
	Calculation	41.84	0.13	52.45	3.41	2.03	0.07	0.04

In Table XIV are shown the results of calculations of the composition of the base alloy of drachms of Orodes I of relatively high fineness, or in other words of drachms that were not deliberately debased or that were much less debased. The serial numbers of the coins in this table correspond to those of Table II. Assumption A was the only one applicable to these calculations, as the other two assumptions led to impossible figures for the percentages of iron or nickel in some of these coins. It will be seen that the composition of the base alloy in these coins is distinctly different from that in the debased drachms (Table XII). The individual alloys that contain less than 2% tin can-

not be classified as bronze at all, but rather as a very impure copper. In Table XV are shown the results of similar calculations of the composition of the base alloy of some drachms of rulers other than Orodes I. Here again only Assumption A was applicable. In half of these coins the base alloy has a composition similar to that of the base alloy in the debased drachms of Orodes I, but in the other half it is merely an impure copper similar to that of the drachms of Orodes I of relatively high fineness. In general, therefore, the composition of the base alloy of Parthian drachms is either a bronze of low tin content and lower lead content, or a very impure copper containing both tin and lead.

TABLE XIV

PROBABLE COMPOSITION OF BASE ALLOY IN DRACHMS
OF ORODES I OF RELATIVELY HIGH FINENESS

<i>Coin No.</i>	<i>Copper %</i>	<i>Tin %</i>	<i>Lead %</i>	<i>Iron %</i>	<i>Nickel %</i>
5	95.05	2.77	2.10	trace	0.08
6	97.34	0.04	2.37	0.21	0.04
7	95.88	1.64	2.20	0.12	0.16
8	93.75	1.71	4.46	trace	0.08
9	94.32	2.55	2.99	0.07	0.07
Av.	95.27	1.74	2.82	0.08	0.09

TABLE XV

PROBABLE COMPOSITION OF BASE ALLOY IN VARIOUS PARTHIAN DRACHMS

<i>Coin No.</i>	<i>Copper %</i>	<i>Tin %</i>	<i>Lead %</i>	<i>Iron %</i>	<i>Nickel %</i>
3	92.90	4.88	2.09	0.03	none
18	96.80	1.51	1.51	0.18	none
19	97.68	1.08	0.96	0.28	none
20	92.53	5.21	2.22	0.04	none
21	91.34	5.93	2.59	trace	0.14
22	94.89	2.47	2.58	none	0.06

In Table XVI are shown the results of calculations of the composition of the base metal in the series of Parthian tetradrachms of Table VII. Assumption A was the only one applicable to these calculations, as the other two led to impossible figures for the percentages of various metals in some of the coins. It will be seen that the base

metal is not a bronze but a relatively pure copper. As may also be seen by comparing these results with those in Tables XIV and XV, this copper is much purer than any of that used for the drachms. The composition of this copper is very similar to that in the Roman As of the same general period, as may be seen by comparing the figures of Table XVI with those of Table XVII, which contains representative analyses from a list previously published by the author.⁶ The analyses in this table are of coins of the reigns of Augustus to Hadrian, in-

TABLE XVI

PROBABLE COMPOSITION OF THE COPPER USED
IN DEBASING PARTHIAN TETRADRACHMS

Coin No.	Copper %	Tin %	Lead %	Iron %	Nickel %
1	98.33	0.17	1.27	0.15	0.08
2	99.08	0.47	0.30	0.11	0.04
3	99.61	none	0.31	0.08	none
4	99.49	0.14	0.19	0.09	0.09
5	98.12	0.97	0.71	0.08	0.12
6	98.72	0.41	0.59	none	0.28
7	99.13	0.24	0.13	0.03	0.47
Max. =	99.61	0.97	1.27	0.15	0.47
Min. =	98.12	none	0.13	none	none
Av. =	98.93	0.34	0.50	0.08	0.15

TABLE XVII

ANALYSES OF ROMAN COPPER COINS

Coin No.	Copper %	Tin %	Lead %	Iron %	Nickel %	Other Impurities %
1	97.93	0.10	0.41	0.05	0.36	0.20
2	99.65	0.01	trace	0.04	0.21	trace
3	99.24	0.10	0.46	0.20	trace	none
4	98.53	0.43	trace	0.43	0.40	0.21
5	99.13	0.22	trace	trace	0.33	0.32
6	99.05	0.53	none	0.10	0.32	trace
7	97.62	0.73	0.30	0.32	0.30	0.63
Max. =	99.65	0.73	0.46	0.43	0.40	0.63
Min. =	97.62	0.01	none	trace	trace	none
Av. =	98.74	0.30	0.17	0.16	0.27	0.19

⁶ Caley, E. R., *The Composition of Ancient Greek Bronze Coins* p. 107.

clusive. Analyses of other Roman copper objects indicate that the copper of these objects rarely exceeded in purity that used for the coins of this denomination, and generally it was less pure. In all probability, therefore, the copper that entered into the composition of the Parthian tetradrachms was also of the highest purity available to the coiners. Indeed, the similarity in the composition of the copper of the Roman As to that used in the Parthian tetradrachms suggests that the copper for both kinds of coins may have come from the same source. All this indicates, therefore, that the metal for Parthian tetradrachms was made by melting together silver of the highest available purity with copper of the highest available purity. This is in sharp contrast to the method of manufacturing metal for the drachms, with the possible exception of very early ones, for, as has been shown, bronze was certainly used in the preparation of the metal for coins of this denomination, and even when copper was used it was less pure than that used for the tetradrachms. Furthermore, silver of the highest purity was not always used in the manufacture of metal for the drachms. The analyses indicate that drachms of earlier date were sometimes melted down in order to obtain metal for the striking of later drachms, but they indicate also that drachms were not melted down to obtain metal for tetradrachms. Though it is possible that earlier tetradrachms were melted down with pure copper to obtain metal for later tetradrachms, this is not indicated by the analyses. As was pointed out before, there is also a difference in the homogeneity of the metal of the drachms and the tetradrachms. All these differences in the metal of the drachms and tetradrachms indicate strongly, at least, that the tetradrachms were struck at different mints than the drachms and possibly in a different part of the Parthian Empire.

VII. FINENESS AND WEIGHT OF PARTHIAN SILVER COINS

The degrees of fineness, expressed on the usual basis of parts per thousand, of all the Parthian drachms that have been assayed or analyzed, are shown in Table XVIII. Figures are given not only for the fineness in terms of silver content but also for the total fineness, which includes the small proportions of gold present in nearly all the coins. Since it is practically certain that all, or nearly all the gold, was introduced into the coinage alloy along with the silver, the intended fineness of the coins is in all probability their total fineness, and not that due to their silver content alone. However, since the proportions of gold are relatively so small, the figures for silver fineness and total fineness are close together and parallel throughout the series. Therefore, it is sufficient to discuss the fineness of these coins on the basis of their silver fineness alone, as any comparisons that may be made as the relative fineness of coins of different date lead to the same conclusions no matter which set of figures is used. Furthermore, this basis is better for comparisons with figures for fineness obtained from specific gravity measurements, a topic discussed in the last three sections of this essay, since the fineness estimated in this way can be expressed only in terms of silver. Also included in Table XVIII are the weights of the drachms that were assayed or analyzed, and the actual weights of silver contained in these coins as computed by multiplying the degrees of fineness by these weights. Unfortunately, the fineness of No. 1, as published by Rauch, is not accompanied by a statement of its weight, and the weight of 3 grams for No. 7, as published by Imhoof-Blumer, appears to be only a rough approximation. Probably none of the weights in the table can be relied on as being accurate original weights of these drachms, as all the specimens analyzed in the present investigation were worn at least to some degree, and the same holds, in all likelihood, for those assayed by the previous investigators. Hence these weights generally must be regarded as tending to be lower than they were originally, and the same holds for the figures for the silver content.

TABLE XVIII

FINENESS AND WEIGHTS OF PARTHIAN DRACHMS

No.	Ruler	Date	Silver Fineness	Total Fineness	Weight Grams	Silver Content Grams
1	Arsaces I (?)	250-248 (?) B.C.	946	946 (?)	—	—
2	Mithradates I	171-138 (?) B.C.	942	943	3.81	3.59
3	Mithradates I	171-138 (?) B.C.	929	932	3.29	3.06
4	Mithradates I	171-138 (?) B.C.	923	925	3.70	3.42
5	Mithradates I	171-138 (?) B.C.	899	904	3.90	3.51
6	Mithradates I	171-138 (?) B.C.	892	894	3.40	3.03
	Mithradates I	171-138 (?) B.C. Av. =	917	920	3.62	3.32
7	Phraates II	138-128/127 B.C.	709	712	—	—
8	Artabanus II	88-77 B.C.	854	855	3.90	3.33
9	Artabanus II	88-77 B.C.	728	730	3.80	2.77
	Artabanus II	88-77 B.C. Av. =	791	793	3.85	3.05
10	Sinatrucos	77-70 B.C.	679	682	3.92	2.66
11	Phraates III (?)	70-57 B.C.	906	909	3.96	3.59
12	Orodes I	57-38/37 B.C.	756	759	3.96	2.99
13	Orodes I	57-38/37 B.C.	748	751	4.02	3.01
14	Orodes I	57-38/37 B.C.	744	748	3.98	2.96
15	Orodes I	57-38/37 B.C.	742	745	3.82	2.83
16	Orodes I	57-38/37 B.C.	698	702	3.92	2.74
17	Orodes I	57-38/37 B.C.	668	672	3.78	2.53
18	Orodes I	57-38/37 B.C.	652	655	3.85	2.51
19	Orodes I	57-38/37 B.C.	582	587	3.70	2.15
20	Orodes I	57-38/37 B.C.	510	514	3.57	1.82
21	Orodes I	57-38/37 B.C.	473	477	3.69	1.75
22	Orodes I	57-38/37 B.C.	464	466	3.84	1.78
23	Orodes I	57-38/37 B.C.	431	434	3.45	1.49
24	Orodes I	57-38/37 B.C.	418	421	3.75	1.57
	Orodes I	57-38/37 B.C. Av. =	607	610	3.79	2.32
25	Tiradates II (?)	26 B.C.	611	613	3.50	2.14
26	Orodes II	4-6 (?) A.D.	798	800	3.20	2.55
27	Orodes II	4-6 (?) A.D.	622	625	3.20	1.99
	Orodes II	4-6 (?) A.D. Av. =	710	713	3.20	2.27
28	Vardanes I	41/42-45 A.D.	743	746	3.65	2.71
29	Gotarzes	40/41-51 A.D.	805	808	3.50	2.82
30	Gotarzes	40/41-51 A.D.	769	773	3.65	2.81
31	Gotarzes	40/41-51 A.D.	755	757	3.60	2.72
	Gotarzes	40/41-51 A.D. Av. =	776	779	3.58	2.78
32	Volagases II	77/78-146/147 A.D.	733	737	3.74	2.74
33	Mithradates IV	130-147 (?) A.D.	770	775	3.28	2.53
34	Mithradates IV	130-147 (?) A.D.	749	753	3.10	2.32
	Mithradates IV	130-147 (?) A.D. Av. =	760	764	3.19	2.43
35	Volagases IV	191-207/208 A.D.	779	782	3.80	2.96
36	Volagases V	207/208-221/ 222 (?) A.D.	521	523	3.32	1.73
37	Artabanus V	213-227 (?) A.D.	746	750	3.20	2.39

It is obvious from Table XVIII (Nos. 1 to 6 inclusive) that the earliest drachms are of higher fineness than later ones, and that they generally contain the highest weight of silver. On the other hand, the weights of these same drachms are often exceeded by those of many later drachms, though they are heavier on the average than drachms issued after the beginning of the Christian Era. Serious debasement is apparent only in the drachms of Orodes I, though it is still possible that some coins of later rulers were similarly debased. The one coin of Volagases V (No. 36) is of low fineness, and possibly the examination of others of this same ruler would show that his coins were also much debased. Wroth⁷ observes that certain individual drachms of other rulers in the collection of the British Museum appear to be struck from silver of poor quality, e.g. one of Sinatruces, one of Phraates III, and one of Phraates IV. However, as far as these present results are indicative, the drachms of Orodes I were debased to a greater degree than those of any other Parthian ruler. The existence of this debasement is further established by the measurements of the specific gravity of a much larger number of his drachms listed and discussed in Section IX of this essay.

In general, Parthian drachms are of lower fineness than similar contemporaneous silver coins issued by countries to the west of Parthia. None of the Parthian drachms reach the very high degree of fineness often found in Greek drachms, in Roman Republican denarii, and in the earliest denarii of the Roman Empire. However, the drachms issued by Parthian rulers at or near the end of their empire are generally of higher fineness and silver content than contemporaneous Roman denarii. Since the Parthian drachms issued after the beginning of the Christian Era were initially of fairly good silver and remained rather constant in fineness and weight while the fineness and weight of the Roman denarii continually declined, the point was ultimately reached when the two became about equal, and finally the denarii became inferior. This relationship is evident on comparing the data in Tables XVIII and XIX.

The degrees of fineness, weights, and silver content by weight of all the Parthian tetradrachms that have been assayed or analyzed are shown in Table XX. All these data have been computed and arranged

⁷ Wroth, W., *B. M. C. Parthia*, *passim*.

in the same way as for the drachms. Here again, the weights of the coins and the corresponding silver content by weight must be regarded as tending to be lower than they were originally, and probably more so than with the drachms, as some of these tetradrachms were appreciably worn. Probably also, a greater proportional loss of metal from corrosion had occurred because of the poor quality of the silver as compared with that of the drachms. Obviously, Parthian tetradrachms of the period covered by these analyses were struck from silver of very low fineness. From the standpoint of proper nomenclature the metal of these coins should be called billon rather than silver. In only one of these examples, the earliest, is the degree of fineness above 500. Furthermore, the fineness evidently declined markedly in the period from about the beginning of the Christian Era to about the time of the end of Parthian rule. As far as the present figures are indicative, this decline in fineness amounts roughly to a half from the beginning to the end of this period.

TABLE XIX

FINENESS AND WEIGHTS OF DENARII OF CERTAIN ROMAN EMPERORS
FROM AUGUSTUS TO SEPTIMIUS SEVERUS INCLUSIVE

<i>Emperor</i>	<i>No. of Coins</i>	<i>Fineness</i>	<i>Weight Grams</i>	<i>Silver Content Grams</i>
Augustus	4	Max. = 991	Max. = 3.88	Max. = 3.84
		Min. = 990	Min. = 3.73	Min. = 3.70
		Av. = 990	Av. = 3.82	Av. = 3.78
Vespasian	4	Max. = 886	Max. = 3.87	Max. = 3.43
		Min. = 798	Min. = 2.68	Min. = 2.14
		Av. = 841	Av. = 3.26	Av. = 2.75
Hadrian	8	Max. = 915	Max. = 3.47	Max. = 2.85
		Min. = 809	Min. = 2.72	Min. = 2.49
		Av. = 848	Av. = 3.21	Av. = 2.72
Commodus	10	Max. = 720	Max. = 3.56	Max. = 2.56
		Min. = 671	Min. = 2.48	Min. = 1.53
		Av. = 711	Av. = 2.90	Av. = 2.03
Septimius Severus	10	Max. = 755	Max. = 3.82	Max. = 2.74
		Min. = 431	Min. = 2.09	Min. = 0.90
		Av. = 595	Av. = 3.07	Av. = 1.88

3*

Notes to Table XIX

This table was constructed from weights of coins and determinations of their fineness published by:

- (a) Bibra, E. von, *Ueber alte Eisen- und Silber-Funde* p. 73.
 (b) Hoefer, F., *Histoire de la Chimie* (Paris, 1866), I, pp. 121-122.
 (c) Rauch, E. von, *Mittheilungen der numismatischen Gesellschaft in Berlin*, III (1857), p. 282.

TABLE XX

FINENESS AND WEIGHTS OF PARTHIAN TETRADRACHMS

No.	Ruler	Date	Silver Fineness	Total Fineness	Weight Grams	Silver Content Grams
1	Phraates IV	37-3/2 B.C.	522	524	14.38	7.51
2	Gotarzes	46/47 A.D.	433	435	10.51	4.55
3	Gotarzes	48/49 A.D.	465	468	11.00	5.12
4	Gotarzes	40/41-51 A.D.	417	419	13.12	5.47
	Gotarzes		Av. = 438	441	11.54	5.05
5	Pacorus II	79/80 A.D.	398	401	11.12	4.43
6	Volagases III	185/186 A.D.	334	335	12.80	4.28
7	Volagases III	147/148-191 A.D.	283	285	10.04	2.84
	Volagases III		Av. = 309	310	11.42	3.56
8	Volagases IV	198/199 A.D.	244	244	12.49	3.05

With the exception of the Alexandrian tetradrachms, which must be regarded as a special class, very few assays or chemical analyses have been made of contemporaneous tetradrachms issued by countries to the west of Parthia. In view of this lack of information about their fineness and the few determinations that have been made of the fineness of Parthian tetradrachms themselves, any conclusions as to the fineness of the latter relative to these others must necessarily be tentative. Our present state of knowledge about the fineness of other contemporaneous tetradrachms, including some Alexandrian tetradrachms, is shown in Table XXI. When compared, the data of Tables XX and XXI indicate that Parthian tetradrachms are of lower fineness than contemporaneous late Syrian tetradrachms of the Roman period, and they appear to indicate that they are of considerably lower fineness than contemporaneous Egyptian tetradrachms of the Ptolemaic period. However, the figure for the one late Ptolemaic tetradrachm may not be at all representative. Many such coins have the appearance of base silver, and lower figures have been obtained

for a few earlier ones in the series. For example, a tetradrachm of Ptolemy X analyzed in the author's laboratory had a fineness of only 510, and Giesecke⁸ reports an analysis of one of Ptolemy Auletes with a fineness of only 336. However, the latter was a plated coin. On the whole, it does not seem possible at present to draw any definite conclusions as to the relative fineness of contemporaneous Parthian and Ptolemaic tetradrachms.

TABLE XXI

FINENESS OF LATE SYRIAN AND EGYPTIAN TETRADRACHMS

Coin No.	Country	Ruler	Fineness
1	Syria	Vespasian	565
2	Syria	Trajan	572
3	Egypt	Ptolemy XIV	830
4	Egypt	Tiberius	287
5	Egypt	Claudius	173
6	Egypt	Nero	172
7	Egypt	Vespasian	180
8	Egypt	Hadrian	157
9	Egypt	Commodus	160
10	Egypt	Septimius Severus	101

Notes to Table XXI

- a. The results of assays of Nos. 1 and 2 were first published by F. Imhoof-Blumer in his *Monnaies Grecques*, p. 474.
- b. No. 3 was analyzed at the University of Leipzig and the results were first published by W. Giesecke in his *Das Ptolemäergeld* p. 93.
- c. The results of a chemical analysis of No. 4 were first published by J. G. Milne, *Numismatic Chronicle*, Ser. IV, X (1910), p. 336.
- d. No. 5 was analyzed by students working under the author's direction, and the above figure was first published by L. C. West and A. C. Johnson in their *Currency in Roman and Byzantine Egypt* (Princeton, 1944), Table II, p. 172. The fineness figures for the remaining coins are taken from their table, and are averages of the fineness figures for two or more coins.

Alexandrian silver coins struck under Tiberius of lower weight than the tetradrachm have been found to be of higher fineness than the one tetradrachm listed in Table XXI. However, as is shown in Table XXII, the actual silver content by weight of such coins and the tetradrachm

⁸ Giesecke, W., *Das Ptolemäergeld* (Leipzig and Berlin, 1930), p. 93.

are about the same, and decidedly below that of Parthian tetradrachms of about the same period. Though the average fineness of the coins of Tiberius is about the same as that of roughly contemporaneous Parthian tetradrachms, the fineness of the one tetradrachm that has been analyzed is much lower, and the coins as a whole contain less silver. As will be seen from Tables XX and XXI, there can be no doubt that Alexandrian tetradrachms of the emperors after Tiberius are of lower fineness than contemporaneous Parthian tetradrachms.

The discrepancy in fineness and weight between Parthian drachms and tetradrachms of the period after the beginning of the Christian Era is considerable, as may be seen by comparing the relevant data in Tables XVIII and XX. Not only are the tetradrachms of lower fineness generally, but their fineness declines markedly, whereas that of the drachms remains relatively constant. This certainly shows a lack of any fixed relationship between the values of the two. It probably indicates also that the two denominations were not only struck at different mints but in different parts of the Parthian empire.⁹

On the average, the weights of the tetradrachms are never as much as four times the weights of the drachms, as may be seen from Table XXIII. Some of this shortage in weight may be due to the

TABLE XXII

FINENESS AND WEIGHTS OF ALEXANDRIAN SILVER COINS OF TIBERIUS

<i>Coin No.</i>	<i>Fineness</i>	<i>Weight Grams</i>	<i>Silver Content Grams</i>
1	611	5.90	3.60
2	546	9.26	5.06
3	395	9.85	3.89
4	352	9.50	3.34
5	287	12.62	3.63
Av. = 438		Av. = 3.90	

⁹ On the basis of archaeological and numismatic evidence McDowell (*Coins from Seleucia on the Tigris* (Ann Arbor, 1935), pp. 159-177) concludes that Parthian tetradrachms were struck only at Seleucia and that the drachms were struck elsewhere. The technical data therefore tend to confirm his conclusion. Professor Thomas Mabbott reminds me that the earlier Sasanian kings struck coins obviously descendants of the billon tetradrachms, now uncommon enough to suggest limited circulation.

Notes to Table XXII

- a. Analyses of Nos. 1, 2, 4, and 5 are given by J. G. Milne, *Numismatic Chronicle*, Ser. IV, X (1910), p. 336.
- b. The analysis of No. 3 is reported by W. Giesecke, *Das Ptolemäergeld*, p. 94.

TABLE XXIII

AVERAGE WEIGHTS OF LATER PARTHIAN TETRADRACHMS AND DRACHMS

<i>Ruler</i>	<i>Tetradrachms</i> <i>Grams</i>	<i>Drachms</i> <i>Grams</i>	<i>Tetradrachm to</i> <i>Drachm Ratio</i>
Phraates IV	13.21	3.61	3.66
Phraates V	11.77	3.64	3.23
Vonones I	11.51	3.68	3.13
Artabanus III	12.30	3.63	3.39
Gotarzes	12.72	3.67	3.47
Vardanes I	12.51	3.58	3.49
Volagases I	11.89	3.53	3.37
Artabanus IV	11.84	3.49	3.39
Pacorus II	11.72	3.55	3.30
Volagases II	11.09	3.64	3.05
Volagases III	12.36	3.45	3.58
Volagases IV	11.75	3.59	3.27
Volagases V	12.60	3.60	3.50
Average of Averages	12.10	3.59	3.37

Note to Table XXIII

The weights here gathered together are those given by L. C. West in his *Gold and Silver Standards in the Roman Empire*, NNM No. 94, *passim*.

baser silver of the tetradrachms with its consequent greater tendency to corrode and thus to lose relatively more weight, but it seems doubtful, that this would account for all this shortage in weight. If the actual amounts of silver by weight in drachms and tetradrachms, i.e. their intrinsic values, are compared, the discrepancy between their nominal values is seen to be much greater than suggested by the general discrepancy in weight. For example, the average silver content of the three drachms of Gotarzes listed in Table XVIII is 2.78 grams, whereas that of his three tetradrachms listed in Table XX is but 5.05 grams, which is a ratio of 1.00 to 1.82. If the average weights of the coins of Gotarzes given in Table XXIII are used as

the basis for computation with the same fineness figures, the ratio becomes 1.00 to 1.95. On either basis the tetradrachms of Gotarzes contain a little less than twice as much silver as his drachms. In view of the possibility of a greater relative loss of weight from the tetradrachms for the reason above mentioned, it is not unlikely that his tetradrachms as struck contained just twice as much silver as his drachms. In other words, his so-called tetradrachms were actually didrachms on the basis of their intrinsic value. It seems probable that this was recognized at the time and that these coins of larger module actually passed as didrachms in trade. A similar satisfactory direct comparison of the intrinsic values of the tetradrachms and drachms of other rulers is not possible from the data here presented. However, these data indicate that the so-called tetradrachms of later rulers were never more than didrachms in intrinsic value, and it would seem that in the time of certain late rulers, Volagases IV for example, the intrinsic value of the so-called tetradrachms was about the same as that of the drachms. This whole question of the relative values of the tetradrachms and drachms of Parthia is worthy of a detailed investigation.

VIII. SPECIFIC GRAVITY MEASUREMENTS

As stated in Section IV of this essay, the specific gravities of all these Parthian coins and the clean blanks of these coins were taken before they were analyzed. Also, as mentioned in Section III, the specific gravities were taken of many drachms of Orodes I that were not analyzed, namely, all the remaining duplicates in the collection at Princeton University. This was done with the hope not only of being able to estimate the average fineness and the variation in fineness of a considerable number of drachms of a single Parthian ruler but also of being able to estimate the relative fineness of some varieties of his coins. Furthermore, in the course of the investigation a few other ancient silver coins were analyzed chemically and the specific gravities of these coins and their blanks were taken, so that their fineness as determined by chemical analysis might be compared with that estimated from specific gravity. All this information has made possible a much needed critical evaluation of the validity of specific gravity measurements of ancient silver coins as an index of their fineness. There is considerable evidence that uncritical reliance has been placed on the specific gravity of such coins as a measure of their fineness. Ondrouch,¹⁰ for example, lists the specific gravities of twenty Roman denarii from a hoard and then expresses the corresponding fineness of these coins through two decimal places in percentage. It may easily be shown both theoretically and experimentally that no basis exists for expressing the fineness estimated by this means to any such degree of accuracy, especially the fineness of ancient silver coins.

The estimation of the composition of an alloy from its specific gravity is only possible theoretically if it is composed of two metals and no more. Hence in any estimation of the fineness of an ancient silver coin from its specific gravity it must be assumed that the coin is composed of silver and copper alone, though in fact, as shown by chemical analyses, as for example, those given in Tables II and VII,

¹⁰ Ondrouch, V., *Der römische Denarfund von Vyškovce aus der Frühkaiserzeit* (Bratislava, 1934), p. 11.

such a coin may be composed of an alloy containing six or seven metals. Although most of these metals other than silver and copper are often impurities present in such small proportion that they have little effect on the specific gravity of a coin, sometimes the proportions of certain of these other metals may be high enough to have an appreciable effect on the specific gravity and thus invalidate the necessary assumption that the coin is composed of silver and copper alone. Another assumption that is necessary for any simple computation of fineness from specific gravity is that no change in volume occurs when the two component metals are alloyed together. Actually, changes in volume do occur, but the experiments of Karmarsch¹¹ indicate that they are not great enough nor erratic enough to invalidate this second assumption. For this reason it is possible to use the following ideal formula for computing the fineness of a silver-copper alloy from its observed specific gravity:

$$\text{Fineness} = \frac{S_1 S_x - S_1 S_2}{S_1 S_x - S_2 S_x} \times 1000$$

Where, on the same temperature basis for each,

S_1 is the specific gravity of pure silver.

S_2 is the specific gravity of pure copper.

S_x is the specific gravity of a given alloy.

In applying this formula, the specific gravities of both pure silver and pure copper must obviously be known with sufficient precision. Unfortunately, it is difficult to establish precisely the specific gravity of either of these metals for the general application of this formula because their specific gravities vary considerably in accordance with the mechanical or thermal treatment to which they have been subjected. After a discussion of the various figures that have been reported for the specific gravity of pure silver, Mellor¹² concludes that 10.5 is the most representative value, which is to say that the specific gravity of pure silver can in a general sense be expressed only through the first decimal place. For the same reason the most representative value for the specific gravity of pure copper should be expressed only

¹¹ Karmarsch, K., *Dinglers polytechnisches Journal*, CCIV (1877), pp. 565-573.

¹² Mellor, J. W., *A Comprehensive Treatise on Inorganic and Theoretical Chemistry* (London, 1923), III, p. 323.

as 8.9. However, this low degree of precision is inadequate for the estimation of the fineness of ancient silver coins from specific gravity measurements, as it allows only 16 units of measurement, i.e. the

TABLE XXIV

THEORETICAL DEGREES OF SILVER FINENESS CORRESPONDING TO
SPECIFIC GRAVITIES OF SILVER-COPPER ALLOYS EXPRESSED
ONLY TO TENTHS OF UNITS IN SPECIFIC GRAVITY

<i>Specific Gravity</i>	<i>Silver Fineness</i>	<i>Increment</i>	<i>Rounded Fineness</i>	<i>Increment</i>
10.5	1000		1000	
		53		50
10.4	947	55	950	60
		56		50
10.3	892	56	890	60
		56		60
10.2	836	58	840	60
		58		60
10.1	780	59	780	60
		60		60
10.0	722	60	720	60
		62		60
9.9	663	62	660	60
		62		60
9.8	603	64	600	60
		66		60
9.7	541	66	540	70
		67		70
9.6	479	68	480	70
		70		70
9.5	415	71	420	70
		73		70
9.4	349		350	
9.3	282		280	
9.2	214		210	
9.1	144		140	
9.0	73		70	
8.9	0		0	

difference between 105 and 89, for the whole scale of fineness from 0 to 1000 degrees. The significance of this is perhaps clearer from Table XXIV where the degrees of fineness corresponding to all possible measurements of specific gravity are given. The second column shows the figures for fineness as actually obtained on computation by the ideal formula, and the fourth column shows these same figures properly rounded off in accordance with the low precision of the specific gravity data. As shown by the columns of differences or increments, this allows estimation of fineness to no closer than about 60 degrees on the average, which is too approximate to be of much use in the study of the fineness of coins. If the specific gravities of pure silver and pure copper were known precisely through the second decimal place, e.g. if these were known precisely for example as 10.50 and 8.90, respectively, then the differences or increments would be correspondingly smaller as is shown by the examples in Table XXV, and the estimation of the fineness of ancient silver coins by means of specific gravity measurements could be made with sufficient accuracy. Since ancient silver coins of all kinds were subjected to about the same kind of mechanical and thermal treatment in the operation of coining, with the rare exception of those formed by casting, it is to be expected that the specific gravity of the silver would be very closely the same for all, and that it could be expressed accurately to more than a single decimal place. The same holds for the copper present as an alloy in such coins, and hence presumably for alloys of silver and copper of any given composition. The experiments of Karmarsch¹³ on the relationship between the specific gravity and the fineness of modern silver coins show that for the special purpose of computing the fineness of such coins from specific gravity measurements the specific gravities of both silver and copper may be expressed with considerable confidence through the second decimal place and that the same specific gravities figures are valid through a wide range of composition. In his experiments on coins of various weights and sizes struck in England, France, Austria, Russia, and various German states between 1772 and 1846, he measured the specific gravity of each coin, assayed them for silver by the fire method, and compared the fineness computed from specific gravity

¹³ Karmarsch, K., *Dinglers polytechnisches Journal*, CCIV (1877), pp. 565-573.

TABLE XXV

THEORETICAL DEGREES OF SILVER FINENESS CORRESPONDING TO
SPECIFIC GRAVITIES OF SILVER-COPPER ALLOYS EXPRESSED TO
HUNDREDTHS OF UNITS IN SPECIFIC GRAVITY

<i>Specific Gravity</i>	<i>Silver Fineness</i>	<i>Increment</i>	<i>Rounded Fineness</i>	<i>Increment</i>
10.50	1000		1000	
		5		5
10.49	995		995	
		6		5
10.48	989		990	
		5		5
10.47	984		985	
		5		5
10.46	979		980	
		6		5
10.45	973		975	
9.75	572		570	
		6		5
9.74	566		565	
		6		5
9.73	560		560	
		6		5
9.72	554		555	
		7		10
9.71	547		545	
		6		5
9.70	541		540	
8.95	37		35	
		8		5
8.94	29		30	
		7		10
8.93	22		20	
		7		5
8.92	15		15	
		8		10
8.91	7		5	
		7		5
8.90	0		0	

with that obtained by fire assay. His results on a series of 28 such coins are summarized in Table XXVI. Though his data on specific gravity are actually given through three decimal places and his data on fineness through one, both have been expressed to the lesser degree of apparent accuracy shown in the table, as this is probably more in accord with the accuracy of his experimental measurements.

TABLE XXVI

DATA OF KARMARSCH ON THE RELATIONSHIP BETWEEN THE FINENESS
AND SPECIFIC GRAVITY OF MODERN SILVER COINS, RECALCULATED,
REARRANGED, AND COMPARED TO THE THEORETICAL FIGURES

<i>Observed Specific Gravity</i>	<i>Fineness by Fire Assay</i>	<i>Fineness by the Formula of Karmarsch</i>	<i>Difference Error</i>	<i>Fineness by Theoretical Formula, I</i>	<i>Difference Error</i>	<i>Fineness by Theoretical Formula, II</i>	<i>Difference Error</i>
10.36	920	927	+ 7	897	— 23	925	+ 5
10.32	899	903	+ 4	874	— 25	903	+ 4
10.31	901	897	— 4	869	— 32	897	— 4
10.31	897	897	0	869	— 28	897	0
10.30	898	890	— 8	863	— 35	892	— 6
10.30	894	890	— 4	863	— 30	892	— 2
10.30	893	890	— 3	863	— 31	892	— 1
10.29	897	884	— 13	858	— 39	886	— 11
10.25	872	860	— 12	835	— 37	864	— 8
10.20	828	830	+ 2	806	— 22	836	+ 8
10.18	813	818	+ 5	795	— 18	825	+ 12
10.17	817	812	— 5	789	— 28	820	+ 3
10.07	750	751	+ 1	731	— 19	762	+ 12
10.05	750	739	— 11	720	— 30	751	+ 1
10.05	747	739	— 8	720	— 27	751	+ 4
9.98	688	696	+ 8	678	— 10	710	+ 22
9.97	690	690	0	673	— 17	704	+ 14
9.93	663	666	+ 3	648	— 15	681	+ 18
9.92	664	660	— 4	642	— 22	675	+ 11
9.87	626	629	+ 3	612	— 14	645	+ 19
9.79	584	581	— 3	563	— 21	597	+ 13
9.77	574	569	— 5	550	— 24	584	+ 10
9.76	564	563	— 1	544	— 20	578	+ 14
9.76	563	563	0	544	— 19	578	+ 15
9.69	521	520	— 1	500	— 21	535	+ 14
9.68	512	514	+ 2	493	— 19	529	+ 17
9.65	497	496	— 1	474	— 23	510	+ 13
9.63	500	484	— 16	462	— 38	497	— 3
			Av. = — 2.3	Av. = — 24.5		Av. = + 6.2	

It will be seen that the figures for fineness computed from specific gravity by means of an empirical formula which he employed agree rather well throughout the whole series with the actual figures obtained by fire assay. This formula, which was really derived from his own experimental data rather than from theoretical considerations, is as follows:

$$\text{Fineness} = \frac{L - 8.833}{0.0016474},$$

Where L is the observed specific gravity of a coin.

However, this empirical formula cannot be applied with such satisfactory results to the estimation of the fineness of coins composed of pure silver or nearly pure silver. Karmarsch found that coins struck from pure silver had a specific gravity of 10.547. When this figure is substituted in his formula the fineness is found to be 1040, or 40 degrees too high. Likewise, coins with a fineness of 994 were found to have a specific gravity of 10.537, and this gives a fineness of 1034 by his formula, or again 40 degrees above the actual fineness. At the other extreme of the range of composition of silver-copper alloys his formula leads to even higher positive errors. He found that coins struck from pure copper had a specific gravity of 8.956, which by his formula gives a fineness of 75 instead of 0. Hence the empirical formula of Karmarsch gives results of satisfactory accuracy only in a certain range of composition. On the other hand, the theoretical formula, on the basis of the specific gravities he found for pure silver and pure copper coins, gives very close results at the extreme ranges of composition but much poorer results, as is shown by the fifth and sixth columns of Table XXVI, for coins of intermediate composition. However, fairly satisfactory results for coins of intermediate composition are obtained by the theoretical formula if the specific gravities of silver and of copper are taken to be 10.50 and 8.90, respectively, as is shown by the last two columns of Table XXVI. Regardless of the different results obtained by these different methods of computation, the fineness of modern silver coins may evidently be estimated with satisfactory accuracy from their specific gravities by the use of one formula or another, at least when the coins are of large size, for it is important to note that the results of Karmarsch were

obtained mostly on crowns and thalers. It now remains to be seen whether the fineness of ancient coins may be estimated with an equal degree of accuracy by this means.

From the data in Tables XXV and XXVI it is evident that the specific gravity of a coin must be determined accurately through the second decimal place if results of satisfactory accuracy are to be obtained, since each unit in the second decimal place is equal on the average to 6 units of fineness. In practice this is not difficult to do with large ancient coins, such as tetradrachms, but it may be very difficult to do with small ones, such as obols. The most convenient and the usual way to determine the specific gravity of a coin is by the method of Archimedes. In this method the coin is weighed accurately in air and then weighed again while it is suspended in water by means of a fine wire. By subtracting from this second weight the weight of the wire alone suspended in water, the weight of the coin in water is found. The difference between the weight of the coin in air and the weight of the coin in water divided into its weight in air gives the specific gravity of the coin. In very accurate work, corrections are made for the buoyant effect of the air on both the coin and the weights, and for the density of the water at the temperature of weighing, but these corrections are of little importance in the determination of the specific gravity of ancient coins, for, as will be shown, other sources of error greatly overshadow these small ones. Though the weight of the coin in air may be determined with a high degree of accuracy by means of a good balance and weights, this is not true for the weight of the coin in water because the surface film of water clings to the suspension wire in the process of weighing and so prevents the balance beam from swinging freely. This occurs, of course, both while the coin is being weighed in water and while the weight of the suspension wire alone is being measured. The effect of this is to introduce an uncertainty into the weight of the coin in water. In spite of all refinements, such as the use of a very fine suspension wire and the addition of a wetting agent to the water so as to reduce its surface tension, the weight of the coin in water beyond the third decimal place in grams is very uncertain, and usually there is an uncertainty of one unit in the third decimal place. In other words, there is usually an uncertainty of one milligram in one direction or the

other in the weight of the coin in water. This may seem a small error, but actually it may have a considerable effect on the computed specific gravity of the coin, especially for small coins, since the relative magnitude of the effect increases as the weight of the coin decreases. This is illustrated by the examples given in Table XXVII. These hypothetical examples show for ideal silver coins of three common Greek denominations the effect of a weighing error of one milligram in one direction or the other on the computed specific gravity and corresponding fineness. Here the fineness was calculated from the specific gravity figures by the theoretical formula, taking 10.50 as the specific gravity of silver and 8.90 as the specific gravity of copper. In these examples it is assumed that the correct specific gravity is 10.00 and that the correct fineness is 722. Obviously, when a coin is as small as an obol the error from this source is so great that any attempt to determine its specific gravity by the method of Archimedes and its corresponding fineness may give very inaccurate results. For such very small coins it is better to use some alternate method of determining specific gravity, such as a method involving the use of a special pycnometer or weighing bottle. Though this will eliminate the error

TABLE XXVII

RESULTS OF HYPOTHETICAL CALCULATIONS FOR COINS OF DIFFERENT SIZE SHOWING THE EFFECT OF AN ERROR OF ONE MILLIGRAM IN ESTABLISHING THE WEIGHT OF A COIN IN WATER WHEN DETERMINING THE SPECIFIC GRAVITY OF ANCIENT SILVER COINS BY THE METHOD OF ARCHIMEDES FOR THE PURPOSE OF ESTIMATING THE FINENESS OF THE COINS

<i>Denomination</i>	<i>Weight in Air Grams</i>	<i>Weight in Water Grams</i>	<i>Loss of Weight Grams</i>	<i>Specific Gravity</i>	<i>Fineness</i>
Tetradrachm	16.000	14.401	1.599	10.01	728
		14.000	1.600	10.00	722
		13.399	1.601	9.99	716
Drachm	4.000	3.601	0.399	10.03	739
		3.600	0.400	10.00	722
		3.599	0.401	9.98	710
Obol	0.660	0.595	0.065	10.15	808
		0.594	0.066	10.00	722
		0.593	0.067	9.85	633

4

caused by the use of a suspension wire it will unfortunately introduce other sources of error, which are generally of the same order of magnitude even though numerically somewhat smaller. In general, it does not seem possible by any of the usual methods to estimate the specific gravity of very small ancient silver coins with sufficient accuracy to yield anything but very approximate figures for their fineness.

An important source of error in the estimation of the fineness of ancient silver coins from specific gravity measurements arises from the presence of corrosion products in or on the coins. Since such corrosion products have a much lower specific gravity than the metals from which they are formed, that of silver chloride, for example, being only about 5.5, their presence will cause the observed specific gravity of a coin to be lower than it should be, and, of course, the computed fineness also to be lower. The importance of this as a possible source of serious error is indicated by the data given in Table XXVIII. The experimental data upon which this table is based were obtained over a century ago by Brüel¹⁴ when he analyzed a miscellaneous series of ancient silver coins and also determined their specific gravities. These coins were not any more closely identified than is shown in the note to the table. Fortunately, this analyst not only selected somewhat corroded coins for analysis but determined the proportion of the main corrosion product, silver chloride. Hence, his experimental data, obtained over a century ago, now becomes useful for the purpose of showing to what extent corrosion products vitiate estimations of fineness based on specific gravity. It will be seen that the fineness computed either by the formula of Karmarsch or by the theoretical formula agrees satisfactorily with the fineness determined by chemical analysis for only the first two coins, those of highest fineness, and that for all the others there is no agreement at all. In general, the discrepancy increases with decrease in fineness, though the relationship between the two is very approximate and erratic. Although the errors are generally less in the six coins that contain the lowest proportions of silver chloride than in the five that contain the highest proportions, large irregularities and inconsistencies occur within these groups. For example, No. 5 contains less silver chloride

¹⁴ Reported in *Journal für praktische Chemie*, XXX (1843), pp. 334-342.

than No. 1, yet the error is much greater, and No. 8 contains much less than No. 7, yet the error is about the same. Though exact calculations of the effect of the presence of the various proportions of silver chloride on the specific gravities of these coinage alloys are not possible because of uncertainties about the accuracy of the determinations of the minor components of these alloys, approximate calculations show clearly enough that the presence of such proportions of silver chloride is not in itself sufficient to account completely for the observed low specific gravities.

TABLE XXVIII

DISCREPANCY BETWEEN FINENESS OF CORRODED ANCIENT SILVER
COINS AS DETERMINED BY CHEMICAL ANALYSIS AND AS
ESTIMATED FROM SPECIFIC GRAVITY

Coin No.	Specific Gravity	Fineness by Chemical Analysis	Fineness by Formula of Karmarsch	Difference Error	Fineness by Theoretical Formula	Difference Error	Silver Chloride Content %
1	10.45	982	982	0	975	— 7	0.49
2	10.43	980	969	— 11	965	— 15	0.31
3	10.12	925	781	— 144	790	— 135	0.76
4	9.85	835	617	— 218	635	— 200	0.54
5	9.74	799	551	— 248	565	— 234	0.40
6	9.63	900	484	— 416	495	— 405	0.63
7	9.57	876	447	— 429	460	— 416	5.77
8	9.52	859	417	— 442	425	— 434	1.86
9	9.50	765	405	— 360	415	— 350	6.21
10	9.46	854	381	— 473	390	— 464	8.48
11	9.02	763	114	— 649	85	— 678	13.04

Notes to Table XXVIII

These coins may be attributed only to the following extent:

1. Denarius of Tiberius. Wt. = 3.24 grams.
2. Roman Republican Denarius. Wt. = 3.10 grams.
3. Denarius of Domitian. Wt. = 2.85 grams.
4. Denarius of Vespasian. Wt. = 2.51 grams.
5. Denarius of Faustina. Wt. = 2.53 grams.
6. Denarius of Vespasian. Wt. = 2.43 grams.
7. Didrachm of Neapolis. Wt. = 7.07 grams.
8. Denarius of Hadrian. Wt. = 2.89 grams.
9. Denarius of Hadrian. Wt. = 2.66 grams.
10. Drachm of Hyela. Wt. = 3.95 grams.
11. Obol of Heraclea. Wt. = 0.76 grams.

4*

Two noticeably corroded coins analyzed in the course of this investigation showed even greater discrepancies between the silver content estimated from specific gravity and that determined by analysis. One was a drachm of Mithradates IV that had a specific gravity of 9.12, which corresponds to a theoretical silver fineness of 158. The actual fineness by analysis was 770, so that the discrepancy amounts to 612 degrees of fineness. The cleaned blank of this coin had a specific gravity of 9.56, which corresponds to a theoretical fineness of 453. Still greater discrepancies were found on the examination of a denarius of Vespasian. This coin had a specific gravity of 9.04, which corresponds to a theoretical silver fineness of 102. But the fineness as determined by analysis was 891, so that the discrepancy amounts to 789 degrees of fineness. The cleaned blank of this coin had a specific gravity of 9.10, which corresponds to a fineness of 144, so that even on the blank the discrepancy amounts to 747 degrees of fineness. The difference in the distribution of the corrosion products in these two coins accounts for the fact that the specific gravity of the blank of one of them is much higher than that of the coin itself, whereas with the other there is not much difference. The coin of Mithradates IV was much corroded on the exterior but the blank was not visibly corroded, whereas the coin of Vespasian was visibly corroded throughout. Nevertheless, it was also apparent that the presence of the corrosion products did not in itself account entirely for the very low observed specific gravities of these coins and their blanks.

In general, it is obvious from all these data that the specific gravity of visibly corroded ancient silver coins is not a reliable index of their fineness, except possibly when the observed specific gravity is very high.

In Table XXIX are shown data on the specific gravity and fineness of a group of ancient silver coins in ordinary condition, that is without any appreciable amounts of corrosion products visible on their surfaces. Probably all these coins had been cleaned mechanically or chemically at one time or another.

It will be seen that here again the fineness derived from specific gravity agrees reasonably well with that determined by chemical analysis only for the first two coins, those of highest specific gravity. For two other coins, Nos. 3 and 4, the agreement is perhaps close

enough for practical purposes, but for the others the agreement is decidedly poor, though not nearly so poor in general as for the corroded coins of similar lower fineness listed in Table XXVIII.

TABLE XXIX

SPECIFIC GRAVITY AS AN INDEX OF THE FINENESS OF ANCIENT SILVER
COINS NOT VISIBLY CORRODED

<i>Coin No.</i>	<i>Specific Gravity</i>	<i>Fineness by Chemical Analysis</i>	<i>Fineness by Formula of Karmarsch</i>	<i>Difference Error</i>	<i>Fineness by Theoretical Formula</i>	<i>Difference Error</i>
1	10.53	987	1030	+ 43	1016	+ 29
2	10.33	944	909	— 35	908	— 36
3	10.32	964	903	— 61	903	— 61
4	10.29	942	884	— 58	886	— 56
5	10.26	948	866	— 82	870	— 78
6	10.09	906	763	— 143	774	— 132
7	10.08	875	756	— 119	768	— 107
8	9.93	929	666	— 263	681	— 248
9	9.92	733	660	— 73	675	— 58
10	9.85	769	617	— 152	633	— 136
11	9.75	744	557	— 187	572	— 172
12	9.66	743	502	— 241	516	— 227
13	9.63	668	484	— 184	497	— 171
14	9.59	679	460	— 219	472	— 207
15	9.45	522	374	— 148	382	— 140
16	9.34	521	308	— 213	309	— 212
			Av. = — 133		Av. = — 126	

Key to the Identification, Weight, and Chemical Composition of the Coins Listed in Table XXIX.

1. Drachm of Alexander the Great, Usual Type. Wt. = 4.13 grams.
The results of chemical analysis were as follows:

Silver	=	98.65%
Gold	=	0.37%
Copper	=	0.22%
Tin	=	0.06%
Lead	=	0.72%
Iron	=	0.03%
Total	=	100.05%

2. Roman Republican Denarius. Obv. Head of Roma r. Rev. ROMA, dioscuri to r. Wt. = 3.25 grams. The results of chemical analysis were as follows:

Silver	= 94.43%
Gold	= 0.49%
Copper	= 4.42%
Tin	= 0.17%
Lead	= 0.39%
Iron	= 0.07%
Total	= 99.97%

3. Persian Siglos, Usual Type. Wt. = 5.53 grams. The results of chemical analysis were as follows:

Silver	= 96.38%
Gold	= 0.10%
Copper	= 2.67%
Tin	= none
Lead	= 0.82%
Iron	= 0.03%
Total	= 100.00%

4. Drachm of Mithradates I. Wt. = 3.81 grams. Analysis No. 1 in Table II.
 5. Roman Republican Denarius. Obv. Head of Saturn l. Below, ROMA Rev. Venus in slow biga r. In exergue, L. AEMMI GAL. Wt. = 3.86 grams. The results of chemical analysis were as follows:

Silver	= 94.79%
Gold	= 0.54%
Copper	= 4.24%
Tin	= 0.02%
Lead	= 0.23%
Iron	= none
Nickel	= trace
Zinc	= none
Total	= 99.82%

6. Drachm of Phraates III (?). Wt. = 3.96 grams. Analysis No. 4 in Table II.
 7. Tetradrachm of Ptolemy X. Obv. Head of Ptolemy to r. Rev. ΠΤΟΛΕΜΑΙΟΥ ΒΑΣΙΛΕΩΣ Standing eagle l. Ll and ΠΑ to l. and r. Wt. = 13.31 grams. The results of chemical analysis were as follows:

Silver	= 87.49%
Gold	= 0.39%
Copper	= 10.24%
Tin	= trace
Lead	= 1.46%
Iron	= 0.04%
Total	= 99.62%

8. Drachm of Mithradates I. Wt. = 3.29 grams.
Analysis No. 2 in Table II.
9. Drachm of Volagases II. Wt. = 3.74 grams.
Analysis No. 20 in Table II.
10. Drachm of Gotarzes. Wt. = 3.65 grams..
Analysis No. 18 in Table II.
11. Drachm of Orodes I. Wt. = 3.98 grams.
Analysis No. 7 in Table II.
12. Drachm of Vardanes I. Wt. = 3.65 grams.
Analysis No. 19 in Table II.
13. Drachm of Orodes I. Wt. = 3.78 grams.
Analysis No. 10 in Table II.
14. Drachm of Sinatruces. Wt. = 3.92 grams.
Analysis No. 3 in Table II.
15. Tetradrachm of Phraates IV. Wt. = 14.34 grams.
Analysis No. 1 in Table VII.
16. Drachm of Volagases V. Wt. = 3.32 grams.
Analysis No. 22 in Table II.

The abnormally high specific gravity of No. 1 of Table XXIX and the corresponding derived fineness of over 1000 is evidently due to the presence of sufficient proportions of gold and lead, both of higher specific gravity than silver itself. The effect of their presence on the specific gravity of the coin may be computed from the analytical figures if the assumption is made that no change in volume occurred when the component metals were alloyed. By dividing each percentage by the corresponding specific gravity, the volume occupied by a given metal in a hundred grams of alloy is found. Then by adding these volumes together and dividing into this weight there is obtained what may be called the theoretical specific gravity of the coinage alloy. The details of this computation are as follows:

$$\text{For silver, } \frac{98.65}{10.5} = 9.395 \text{ cc.}$$

$$\text{For gold, } \frac{0.37}{19.3} = 0.019 \text{ cc.}$$

$$\text{For copper, } \frac{0.22}{8.9} = 0.025 \text{ cc.}$$

$$\text{For tin, } \frac{0.06}{7.3} = 0.008 \text{ cc.}$$

$$\text{For lead, } \frac{0.72}{11.3} = 0.064 \text{ cc.}$$

$$\text{For iron, } \frac{0.03}{7.9} = 0.004 \text{ cc.}$$

$$\text{Total} = 9.515 \text{ cc.}$$

$$\frac{100.05}{9.515} = 10.52 \text{ theoretical specific gravity.}$$

Instead of using 100.05, the actual summation of the analytical figures, for this computation, it is perhaps better logically to prorate the analytical figures to a summation of exactly 100.00, though if this is done only the figure for silver is affected and the final division, $\frac{100.00}{9.50} = 10.52$, gives the same result. It will be seen that this result agrees very well with the observed specific gravity of 10.53, and this high figure is thus satisfactorily explained.

In Table XXX are shown data on the specific gravity and fineness of the cleaned blanks of the coins listed in Table XXIX. It will be seen that the agreement between the fineness estimated from specific gravity and that determined by chemical analysis is generally very much closer for these blanks than for the coins themselves. This shows that the metal on the surface of such coins must be abnormally low in specific gravity, probably because it is more or less porous. Such porosity is probably caused by the superficial corrosion of the metal followed by the leaching out of the products of corrosion either naturally or in the process of cleaning. The greater lack of agreement between the fineness estimated from specific gravity and that found by chemical analysis for the baser coins, as contrasted to those composed of nearly fine silver, is in accordance with this explanation because the surface of such coins is more likely to be corroded under natural conditions.

The specific gravity of the metal removed from the surface of a coin in preparing a blank for analysis may actually be computed from the specific gravity of the coin, the specific gravity of the blank, the weight of the coin, and the weight of the blank. The volumes of the coin and the blank are found by dividing the respective weights by the respective specific gravities, and the difference of the two volumes is the volume of the metal removed. The weight of the metal removed

TABLE XXX

SPECIFIC GRAVITY AS AN INDEX OF THE FINENESS OF THE BLANKS
OF ANCIENT SILVER COINS NOT VISIBLY CORRODED

<i>Coin No.</i>	<i>Specific Gravity</i>	<i>Fineness by Chemical Analysis</i>	<i>Fineness by Formula of Karmarsch</i>	<i>Difference Error</i>	<i>Fineness by Theoretical Formula</i>	<i>Difference Error</i>
1	10.56	987	1046	+ 59	1032	+ 45
2	10.41	944	957	+ 13	952	+ 8
3	10.32	964	903	— 61	903	— 61
4	10.35	942	921	— 21	919	— 23
5	10.32	948	903	— 45	903	— 45
6	10.18	906	818	— 88	825	— 81
7	10.22	875	842	— 33	848	— 27
8	10.10	929	769	— 160	780	— 149
9	10.09	733	763	+ 30	774	+ 41
10	10.05	769	739	— 30	751	— 18
11	10.01	744	714	— 30	728	— 16
12	10.06	743	745	+ 2	757	+ 14
13	9.86	668	623	— 45	639	— 29
14	9.85	679	617	— 62	633	— 46
15	9.68	522	514	— 8	529	+ 7
16	9.63	521	484	— 37	497	— 24
Av. = — 32					Av. = — 25	

is the difference between the weights of the coin and the blank, and the specific gravity of the metal removed is its weight divided by its volume. All this may be expressed by means of the following formula:

$$S_r = \frac{W_c - W_b}{\frac{W_c}{S_c} - \frac{W_b}{S_b}}$$

Where, S_r is the specific gravity of the metal removed
 S_c is the specific gravity of the coin
 S_b is the specific gravity of the blank
 W_c is the weight of the coin in grams
 W_b is the weight of the blank in grams

The specific gravity thus computed is, of course, only an average figure, as the metal removed is in all probability not homogeneous. It may consist of solid metal, but usually it is metal mixed with corrosion products, metal that is porous, or metal that is both porous and mixed with corrosion products. Furthermore, it may differ in specific gravity with distance from the surface of the coin.

The data necessary for the computation and the results of computation by the above formula for the coins listed in Table XXIX are shown in Table XXXI. It will be seen that the average specific gravity of the metal removed from each of the coins is, with a single exception, lower than that of the corresponding coin or blank. In No. 3 it is slightly higher, but this is caused by the unusually small

TABLE XXXI

AVERAGE SPECIFIC GRAVITY OF METAL REMOVED FROM COINS
 IN PREPARATION OF BLANKS

<i>Coin No.</i>	<i>Weight of Coin Grams</i>	<i>Weight of Blank Grams</i>	<i>Specific Gravity of Coin</i>	<i>Specific Gravity of Blank</i>	<i>Average Specific Gravity of Metal Removed</i>
1	4.1311	4.0000	10.53	10.56	9.64
2	3.2470	3.0909	10.33	10.41	8.97
3	5.5307	5.4561	10.32	10.32	10.36
4	3.8079	3.4057	10.29	10.35	9.06
5	3.8590	3.4770	10.26	10.32	9.75
6	3.9570	3.4220	10.09	10.18	9.71
7	13.3055	13.1188	10.08	10.22	5.13
8	3.2855	2.7687	9.93	10.10	9.10
9	3.7407	3.0467	9.92	10.09	9.24
10	3.6517	2.8437	9.85	10.05	9.21
11	3.9800	3.2220	9.75	10.01	8.76
12	3.6517	2.7357	9.66	10.06	8.62
13	3.7830	3.2850	9.63	9.86	8.36
14	3.9237	3.5467	9.59	9.85	7.69
15	14.3780	13.0460	9.45	9.68	7.66
16	3.3147	2.4757	9.34	9.63	8.58

weight and volume of the metal removed which gave an insufficient number of digits to yield an accurate figure. Actually, since the coin and the blank have the same specific gravity, that of the metal removed should also be 10.32. The specific gravity of the metal removed is more than one unit in specific gravity below that of the coin, the blank, or both in half the examples in this group of coins. There is no reason to suspect that the surprisingly low result for No. 7 is not valid. As will shortly be shown, the surface metal of three other tetradrachms was found to have an even lower specific gravity. Such a result certainly shows the presence of porous metal on the surface of the coin.

In general, therefore, it is obvious that the specific gravity of ancient silver coins in ordinary condition is not a reliable index of their fineness, except when the observed specific gravity is very high. The data in Tables XXIX and XXX also show that for such coins the fineness computed by the theoretical formula leads to noticeably closer results than when computed by the empirical formula of Karmarsch.

Some surprising results are obtained when an attempt is made to estimate the fineness of ancient billon coins from specific gravity measurements. Very often the specific gravity of a given coin is much below that of pure copper, so that the indication is that the coin contains no silver at all. Examples are shown in Table XXXII. Even the specific gravity of the blanks of most of these coins is below that of

TABLE XXXII

SPECIFIC GRAVITY AND FINENESS OF SOME
ANCIENT BILLON COINS AND THEIR BLANKS

No.	<i>Specific Gravity of Whole Coin</i>	<i>Specific Gravity of Blank</i>	<i>Fineness</i>
1	8.88	9.26	244
2	8.86	9.25	417
3	8.50	9.13	398
4	8.12	8.79	155
5	7.70	8.62	283
6	7.67	8.03	465
7	7.36	7.88	433
8	5.60	6.80	225

Key to Identification, Weight, and Chemical Composition of Coins Listed in Table XXXII

1. Parthian Tetradrachm of Volagases IV. Wt. = 12.49 grams.
Analysis No. 7 in Table VII.
2. Parthian Tetradrachm of Gotarzes. Wt. = 13.12 grams.
Analysis No. 4 in Table VII.
3. Parthian Tetradrachm of Pacorus II. Wt. = 11.12 grams.
Analysis No. 5 in Table VII.
4. Alexandrian Tetradrachm of Vespasian, Year 2. Wt. = 12.26 grams.
The results of chemical analysis were as follows:

Silver	= 15.53%
Copper	= 81.00%
Tin	= 1.74%
Lead	= 0.13%
Iron	= 0.08%
Total	= 98.48%

5. Parthian Tetradrachm of Volagases III. Wt. = 10.04 grams.
Analysis No. 6 in Table VII.
6. Parthian Tetradrachm of Gotarzes. Wt. = 11.00 grams.
Analysis No. 3 in Table VII.
7. Parthian Tetradrachm of Gotarzes. Wt. = 10.51 grams.
Analysis No. 2 in Table VII.
8. Alexandrian Tetradrachm of Vespasian, Year 2. Wt. = 7.03 grams.
The results of chemical analysis were as follows:

Silver	= 22.53%
Copper	= 75.29%
Tin	= 0.46%
Lead	= 0.20%
Iron	= 0.05%
Total	= 98.53%

pure copper, which shows that the porosity due to corrosion was much more than superficial. Especially striking are the low figures for the specific gravities of the coin and blank of the last example in the table. From its composition as found by analysis, the specific gravity of this coin or its blank, if it were of solid metal, should theoretically be about 9.22. If the observed very low figures are due entirely to porosity, the figure of 5.60 for the coin means that on the average about 39% of its volume consisted of empty cavities. The corresponding figure for the blank is about 26%. Of course, the observed very

low figures may not be entirely the result of empty cavities, but may be caused in part by cavities partly or entirely filled with corrosion products. The presence of some corrosion products is indicated by the failure of the sum of the metals to add up to 100.00%. The difference between this figure and the actual summation of 98.53% is certainly in large part due to the presence of chlorine, oxygen, or other undetermined non-metals.¹⁵ However, since the specific gravity of certain of the more likely corrosion products approaches or exceeds the observed figures, that of silver chloride being about 5.5 and that of cuprous oxide being about 6.0, for example, it is improbable that more than a small proportion of such partly or completely filled cavities could have been present in this coin or its blank.

In Table XXXIII are shown, for the blank of this coin and the blanks of the other coins listed in Table XXXII, data on the approximate percentages of non-metals, as indicated by the deficiencies in the summation of the metallic components, the specific gravities, both observed and theoretical, their differences, and the estimated apparent porosity for each blank, which may be defined as the percentage of minute cavities or pores by volume, on the assumption that these are empty. This is computed by dividing the difference between the observed and theoretical specific gravity by the theoretical specific gravity and multiplying by 100. These data are based on the blanks rather than on the coins themselves since the purpose is to show to what extent porosity may exist deep within the body of such coins, and furthermore, the calculations are more valid for the blanks because the analytical figures were obtained on them.

It will be seen that the observed and theoretical specific gravities of No. 1 in Table XXXIII are almost the same, which indicates that the blank of this coin was not porous. The low specific gravity of the coin itself must be ascribed to porous metal on its surface. Nos. 2 and 3 were slightly porous, but the minute cavities of No. 2 were probably more or less filled with corrosion products, whereas those of

¹⁵ In general, the difference between the actual summation of an analysis and the ideal summation of 100.00% is due either to the presence of undetermined components or to experimental error. In this analysis there were no undetermined metals in appreciable proportion, and the experimental error was probably very small since the summations of two separate careful analyses came to 98.52% and 98.53%.

No. 3 must have been largely empty. Nos. 5, 6, and 7 were much more porous than Nos. 2 and 3 and contained much more corrosion products. The rather small figures for the deficiencies in summation shown in the table represent much higher percentages of corrosion products. Silver chloride and cuprous oxide have been observed to be the principal products of corrosion included in the metal of coins of this sort. If silver chloride is the only one present, a deficiency in summation of 1% represents about 4% of this compound, and if cuprous oxide is the only one, the same deficiency in summation represents about 9%. Generally both products are present in various proportions. If present in equal proportions, 1% deficiency represents about 6.5% of corrosion products, and 6.5 may be used as a rough factor to convert percentage of deficiency in summation into approximate percentage of corrosion products. It is obvious, therefore, that

TABLE XXXIII

APPARENT POROSITY OF BLANKS OF BILLON COINS

No.	Deficiency in Summation %	Observed Specific Gravity	Theoretical Specific Gravity	Difference in Specific Gravity	Apparent Porosity %
1	0.41	9.26	9.24	+ 0.02	none
2	0.44	9.25	9.52	— 0.27	2.8
3	0.10	9.13	9.50	— 0.37	3.9
4	1.52	8.79	9.08	— 0.29	3.2
5	2.57	8.62	9.32	— 0.70	7.5
6	4.03	8.03	9.63	— 1.60	16.6
7	2.69	7.88	9.56	— 1.68	17.6
8	1.47	6.80	9.22	— 2.42	26.2

Nos. 5, 6, and 7 contained considerable proportions of corrosion products included in the metal. Though the proportions of corrosion products in Nos. 4 and 8, which were blanks of duplicate coins, were probably almost the same, the apparent porosities were very different. This indicates that the cavities or pores of No. 4 were largely filled with corrosion products, whereas those of No. 8 were more or less empty. The cavities or pores of all such coins or their blanks are generally not apparent to the eye, for the metal usually appears to be sound, though it may appear discolored if the proportion of corrosion products is unusually high. These minute cavities or pores apparently

exist for the most part as interstices between grains of sound metal. Their existence has been confirmed by microscopic examination. In all probability they are not original defects in the metal but were formed as a result of intergranular corrosion.

The computed specific gravity of the metal removed from each of these tetradrachms in preparing the blanks is shown in Table XXXIV. As will be seen, it is always much lower than that of the corresponding coin or blank. These specific gravities are all more than one unit low and some are over three units low. Those for Nos. 4 and 8, both Alexandrian tetradrachms, are surprisingly low. In general, these results show that the surface metal of all these base tetradrachms was very porous.

TABLE XXXIV

AVERAGE SPECIFIC GRAVITY OF METAL REMOVED FROM
TETRADRACHMS IN PREPARATION OF BLANKS

<i>Coin No.</i>	<i>Weight of Coin Grams</i>	<i>Weight of Blank Grams</i>	<i>Specific Gravity of Coin</i>	<i>Specific Gravity of Blank</i>	<i>Average Specific Gravity of Metal Removed</i>
1	12.491	9.922	8.88	9.26	7.67
2	13.124	11.816	8.86	9.25	6.41
3	11.122	9.321	8.50	9.13	6.26
4	12.259	10.928	8.12	8.79	4.99
5	10.038	7.647	7.70	8.62	5.74
6	11.003	9.262	7.67	8.03	6.19
7	10.508	8.743	7.36	7.88	5.55
8	7.033	5.720	5.60	6.80	3.17

Another interesting example of very low specific gravity was observed in a tetradrachm of Ptolemy X, though this coin had a considerably higher silver content than No. 8 of Table XXXII. The results of chemical analysis were as follows:

Silver	= 50.99%
Gold	= 0.23%
Copper	= 42.20%
Tin	= 1.56%
Lead	= 1.30%
Iron	= 0.05%
Nickel	= 0.03%
Zinc	= 0.10%
Total	= <u>96.46%</u>

The specific gravity of this tetradrachm was only 5.68, and its apparent porosity was about 41%, or more than that of No. 8 of Table XXXII. When the attempt was made to determine the specific gravity of the blank of this coin in the usual way, an interesting and significant phenomenon was encountered in the form of a slow increase in its apparent weight while it was suspended in water. The weight observed when the coin was first suspended in the water was 6.082 grams, but after a few minutes the apparent weight was noticeably greater, and several such successive weighings were made in the hope that equilibrium would soon be reached. When this did not occur, both the observed weights and the times of weighing were recorded. Some results of these timed weighings are shown in Table XXXV. As there indicated, final equilibrium was not reached until over 24 hours had passed. This gradual increase of weight was evidently due to the slow seepage of water into the pores of the metal.

TABLE XXXV

RESULTS OF EXPERIMENTS ON GAIN IN APPARENT WEIGHT OF BLANK OF
TETRADRACHM OF PTOLEMY X IMMERSSED IN WATER

<i>Consecutive Weighing</i>	<i>Elapsed Time Minutes</i>	<i>Observed Weight of Blank and Wire in Water Grams</i>	<i>Cumulative Gain in Weight Grams</i>
1	0	6.167	
2	142	6.233	0.066
3	145	6.234	0.067
4	151	6.237	0.070
5	166	6.243	0.076
6	311	6.293	0.126
7	320	6.296	0.129
8	1693	6.382	0.215
9	1704	6.382	0.215
10	1772	6.382	0.215

To accelerate this process, the vessel of water containing the blank was subjected to reduced pressure between the fifth and sixth weighings listed in the table. This served to remove air from the pores of the metal and to allow the water to penetrate faster. After the seventh weighing the blank was allowed to stand overnight in the vessel of water before the weighings were resumed. The specific gravity of the

blank based on the first observed weight and the weight of the blank in air before immersion in water was 5.85. Its specific gravity based on the final weight at equilibrium and this same weight of the blank was 7.76. However, when the blank was dried after immersion in water it was found to weigh 7.047 grams as contrasted to its weight of 7.109 grams before immersion. In the actual experiment the blank was removed from the water and allowed to stand exposed to the air at room temperature for 15 hours, at the end of which time its weight was found to be 7.050 grams. Then it was dried for an hour in an oven at 120° C. and on cooling was found to weigh 7.047 grams, which an additional drying in the oven for an hour did not change appreciably. The difference of 0.062 gram between the weight of the dry blank before and after immersion must be ascribed to a small amount of soluble corrosion products or other soluble material leached from the metal by the water. The specific gravity of the blank based on its first observed weight in water and the weight of the leached and dried blank was 6.11, which is perhaps the figure to be compared with the specific gravities of the blanks of the other tetradrachms, for this represents the apparent specific gravity of the blank before water had penetrated appreciably into the pores of the metal. Its specific gravity based on its final weight in water at equilibrium and the same weight of the blank was 8.25. Thus, several quite different figures for the specific gravity of this blank are possible in accordance with the particular weights selected for computation. The specific gravity 8.25 is nearer to that of the alloy itself, which theoretically should be about 9.68. The figure 6.11 represents an apparent porosity of about 36.9% and the figure 8.25 represents an apparent porosity of about 14.8%. This means that about 71% of the cavities or pores in the metal of the blank were open to penetration by water and about 29% were closed. In terms of the weight of the leached and dried blank, the weight of water absorbed, as measured by its apparent gain in weight on immersion, amounted to 4.26%. An approximate check on this result was obtained by soaking the blank thoroughly in water, allowing it to stand in air until no more water was apparent on its surface, weighing it, drying it completely, and weighing it again. The water thus found amounted to 4.78%. In terms of volume the percentage of water absorbed is much higher. From the

gain in apparent weight in water, the volume of water absorbed was 0.299 cc., and the external volume of the blank based on a specific gravity of 6.11 was 1.153 cc., so that the volume of water absorbed amounted to 25.9% of that of the blank. In other words, the apparently solid metal of the blank absorbed about a fourth of its own volume of water. This result agrees fairly well with the figure on the change in apparent porosity on absorption of water. All these results serve to demonstrate the reality of the existence of cavities or pores in the metal of a sufficiently corroded ancient billon coin. In this particular coin an extensive system of connecting internal cavities or pores was evidently opened to penetration by water when the surface metal was filed off. Water was not absorbed when the coin itself was immersed in water, apparently because the pores were closed at the surface of the coin, and this may have been a result of polishing. However, the metal on the surface was very porous, as computation on the basis of 5.68 for the specific gravity of the coin and 6.11 for the specific gravity of the blank gave a specific gravity of 3.70 for the metal removed in the preparation of the blank.

As shown by the preceding examples, ancient billon coins have often undergone extensive internal corrosion with the formation of cavities and pores that have greatly reduced their original weight and specific gravity. Undoubtedly, the same coins have also undergone considerable external corrosion with the loss of metal from the surface, but measurements of billon coins in various states of preservation indicate that the diameter and thickness of severely corroded coins, after removal of crusts and layers of external corrosion products, are not much different from what they were originally. In other words, the volume of such coins has not been much altered in spite of a very considerable reduction in weight. Therefore, it should be possible to estimate, at least approximately, the original weight of a cleaned coin of this sort from its present weight, its present specific gravity, and its theoretical specific gravity by means of the following formula:

$$\text{Original Weight} = \frac{W_p \times S_t}{S_p}$$

Where, W_p is the present weight
 S_p is the present specific gravity
 S_t is the theoretical specific gravity.

Results of a computation of the original weights, by this formula, of the coins listed in Table XXXII and of the one coin of Ptolemy X just discussed, are shown in Table XXXVI. These estimated original weights are in approximate agreement with the known weights of the same types of coins in a fine state of preservation.

It might be supposed that this formula would not be of much practical use to the numismatist for estimating the original weight of a billon coin that is abnormally light in weight from internal corrosion, since the theoretical specific gravity required by the formula is derived in these examples from chemical analyses which involved destruction of the coins. However, no exact figures for the fineness and corresponding theoretical specific gravity are needed in order to estimate the original weight of such a coin with sufficient accuracy for most purposes, for, as shown in Table XXXVII, considerable

TABLE XXXVI
ESTIMATION OF THE ORIGINAL WEIGHT OF TETRADRACHMS
OF LOW WEIGHT AND SPECIFIC GRAVITY

No.	<i>Observed Specific Gravity</i>	<i>Theoretical Specific Gravity</i>	<i>Present Weight Grams</i>	<i>Original Weight Grams</i>
1	8.88	9.24	12.49	13.0
2	8.86	9.52	13.12	14.1
3	8.50	9.50	11.12	12.4
4	8.12	9.08	12.26	13.7
5	7.70	9.32	10.04	12.2
6	7.67	9.63	11.00	13.9
7	7.36	9.56	10.51	13.7
8	5.60	9.22	7.03	11.6
9	5.68	9.68	7.98	13.6

variations in these figures do not cause wide variations in this estimated weight. It will be seen that in all these hypothetical examples the range in estimated weight is the same, and that it amounts to only 0.3 gram. Therefore, if the average or usual fineness of a given type of coin is already known from previous assays or analyses, this may be used with some confidence to calculate the theoretical specific gravity of another coin of this type, and hence its original weight without destroying it. In fact, if the figure for the theoretical specific

5*

TABLE XXXVII

RESULTS OF THEORETICAL CALCULATIONS OF THE EFFECT OF ERROR IN THEORETICAL SPECIFIC GRAVITY ON THE COMPUTED ORIGINAL WEIGHT OF BILLON COINS OF ABNORMALLY LOW WEIGHT AND SPECIFIC GRAVITY

<i>Observed Specific Gravity</i>	<i>Present Weight Grams</i>	<i>Theoretical Specific Gravity</i>	<i>Corresponding Fineness</i>	<i>Estimated Original Weight Grams</i>
5.00	7.0	9.70	541	13.6
		9.65	510	13.5
		9.60	479	13.4
		9.55	447	13.4
		9.50	414	13.3
7.00	10.0	9.70	541	13.9
		9.65	510	13.8
		9.60	479	13.7
		9.55	447	13.6
		9.50	414	13.6
9.00	13.0	9.70	541	14.0
		9.65	510	13.9
		9.60	479	13.9
		9.55	447	13.8
		9.50	414	13.7

gravity of a given type of coin is based on the determination of the fineness of an example or examples in a good state of preservation, this figure may be better than one obtained from the determination by assay or analysis of the fineness of a severely corroded example. The percentage of silver in such a coin may be higher than it was originally because the base metals may have been selectively corroded at a higher rate than the silver. This is certainly probable on theoretical grounds, and analyses of coins of the same type in different states of preservation support this view. For example, Nos. 4 and 8 of Table XXXII are of identical type, but No. 4 had a fineness of 155, whereas No. 8, which was evidently more severely corroded, had a fineness of 225. Furthermore, the fineness of No. 4 is about normal for Alexandrian tetradrachms of the period, but that of No. 8 is somewhat high. It would appear, therefore, that this formula may be practically applied to the estimation of the original weight of light billon coins without destroying them.

Even though specific gravity measurements are not generally reliable for estimating the fineness of ancient billon coins, especially those that are corroded internally, they evidently may be very useful for obtaining other kinds of information, as has been demonstrated by some examples.

The fineness estimated from specific gravity is generally much closer to that determined by chemical analysis for electrolytically

TABLE XXXVIII

SPECIFIC GRAVITY AS AN INDEX OF THE FINENESS OF ELECTROLYTICALLY
CLEANED DRACHMS OF ORODES I

<i>Coin No.</i>	<i>Specific Gravity</i>	<i>Silver Fineness Computed From Specific Gravity</i>	<i>Silver Fineness By Chemical Analysis</i>	<i>Difference In Fineness</i>	<i>Corrected Fineness From Specific Gravity</i>	<i>Corrected Difference In Fineness</i>
1	10.00	722	748	— 26	772	+ 24
2	9.91	669	698	— 29	719	+ 21
3	9.86	639	742	— 103	689	— 53
4	9.75	572	652	— 80	622	— 30
5	9.73	560	582	— 22	610	+ 28
6	9.53	434	510	— 76	484	— 26
7	9.48	402	473	— 71	452	— 21
8	9.45	382	464	— 82	432	— 32
9	9.42	362	418	— 56	412	— 6
10	9.38	336	431	— 95	386	— 45
				Av. = — 64		Av. = — 16

cleaned ancient silver coins than for uncleaned coins or those that have been cleaned by other methods. The difference is especially noticeable for coins of moderately low fineness. Some examples are shown in Table XXXVIII. The coins of this table were all from the hoard mentioned at the beginning of this essay. They were cleaned by electrolysis in 2% sodium hydroxide solution, and some of them were further treated by a process, which has been described by the author,¹⁶ to remove spots and patches of reduced copper from their surfaces. They were also polished with fine sea sand before determin-

¹⁶ *Technical Studies in the Field of the Fine Arts*, III (1935), pp. 123-132.

ation of their specific gravities. The results in Table XXXVIII should be compared with those in Tables XXVIII and XXIX. Even though they are all too low, it is evident that they are generally much better. The only very poor result is that for No. 3, and, even if this one is included, the differences between the fineness estimated from specific gravity and that determined by analysis are over a much smaller range. Because of this much greater uniformity in the degree of error, a constant positive correction could be applied to each of the results to bring nearly all of them into the range of useful accuracy. The effect of an arbitrary correction of +50 degrees is shown in the last two columns of the table. With the exception of Nos. 3 and 10 the individual errors are now about 3% or less, and the average error is a fourth of what it was without this correction. The last four coins listed in the table were actually composed of billon, so that it would appear that the fineness of electrolytically cleaned billon coins, at least those not abnormally light in weight from internal corrosion or too low in fineness, may be estimated with some degree of success by means of specific gravity.

In Table XXXIX are shown the results obtained on the blanks of the same coins. Here it will be seen that the difference errors between the fineness estimated from specific gravity and that determined by

TABLE XXXIX

SPECIFIC GRAVITY AS AN INDEX OF THE FINENESS OF THE BLANKS OF
ELECTROLYTICALLY CLEANED DRACHMS OF ORODES I

<i>Blank No.</i>	<i>Specific Gravity</i>	<i>Silver Fineness Computed From Specific Gravity</i>	<i>Silver Fineness By Chemical Analysis</i>	<i>Difference In Fineness</i>
1	10.07	762	748	+ 14
2	9.97	704	698	+ 6
3	10.06	757	742	+ 15
4	9.92	675	652	+ 13
5	9.86	639	582	+ 57
6	9.78	590	510	+ 80
7	9.64	504	473	+ 31
8	9.56	453	464	- 11
9	9.52	430	418	+ 12
10	9.57	459	431	+ 26
				Av. = + 24

analysis are all in the positive direction and generally smaller. These positive errors are undoubtedly due to the presence of sufficient gold and lead in the alloys to cause the specific gravities of the blanks to be higher than they would be from their silver content alone. The results of calculations of theoretical specific gravity based on actual chemical composition are shown in Table XL. It will be seen that they agree closely with the observed specific gravities. Also shown are the corresponding figures for fineness and their differences. All these figures show that the blanks of these coins were essentially free from cavities and pores, and the summations of the analyses shown in Table II indicate that they were also essentially free from corrosion products.

TABLE XL

OBSERVED SPECIFIC GRAVITY OF BLANKS OF DRACHMS OF ORODES I
COMPARED WITH SPECIFIC GRAVITY COMPUTED FROM CHEMICAL
COMPOSITION, AND ACTUAL FINENESS COMPARED WITH FINENESS
COMPUTED FROM THEORETICAL SPECIFIC GRAVITY

Blank No.	Observed Specific Gravity	Theoretical Specific Gravity	Difference	Actual Fineness	Computed Fineness	Difference
1	10.07	10.09	+ 0.02	748	774	+ 26
2	9.97	9.99	+ 0.02	698	716	+ 18
3	10.06	10.08	+ 0.02	742	768	+ 26
4	9.92	9.90	— 0.02	652	663	+ 11
5	9.86	9.83	— 0.03	582	621	+ 39
6	9.78	9.87	— 0.11	510	523	+ 13
7	9.64	9.60	— 0.04	473	479	+ 6
8	9.56	9.52	— 0.04	464	430	— 34
9	9.52	9.50	— 0.02	418	415	— 3
10	9.57	9.52	— 0.05	431	430	— 1
Av. = — 0.03				Av. = + 10		

In Table XLI are shown the results of calculations of the specific gravity of the metal removed from the coins in preparing the blanks. By comparing these results with those given in Table XXXI it will be seen that the specific gravity of the surface metal of these electrolytically cleaned coins was higher and more uniform generally. In only 30% of these coins does the specific gravity of this metal fall below

9.00, whereas the proportion for those in ordinary condition is 50%. Moreover, in none of the electrolytically cleaned coins does it fall below 8.00. Still more significant, however, are the differences in the ratios of the specific gravity of the metal removed to that of the corresponding blank for the coins of the two lots. It is evident that this is generally lower for the coins of Table XXXI than for those of Table XLI. The actual average figures are 0.865 and 0.930, respectively. All this shows that the surface metal of these electrolytically cleaned coins was much less porous.

In general, the results of these experiments indicate that the specific gravity of the surface metal of silver coins cleaned by electrolytic reduction is generally higher than that of untreated coins or those cleaned by other methods. The reason for this appears to be that some of the cavities or pores in the metal on or near the surface are filled or partly filled with new metal derived from the reduction of the corrosion products on the surface of the coin. Since porosity of the surface metal is the chief cause of error in estimating the fineness of ancient silver coins by means of specific gravity, this explains why better results are usually obtained on coins that have been cleaned electrolytically.

From the average diameter, the weights of the coin and the blank, and the corresponding specific gravities, it was possible to calculate

TABLE XLI

AVERAGE SPECIFIC GRAVITY OF METAL REMOVED FROM ELECTROLYTICALLY
CLEANED DRACHMS OF ORODES I IN PREPARATION OF BLANKS

<i>Coin No.</i>	<i>Weight of Coin Grams</i>	<i>Weight of Blank Grams</i>	<i>Specific Gravity of Coin</i>	<i>Specific Gravity of Blank</i>	<i>Average Specific Gravity of Metal Removed</i>
1	4.020	3.737	10.00	10.07	9.13
2	3.931	2.143	9.91	9.97	9.83
3	3.817	3.299	9.81	10.06	8.46
4	3.851	3.404	9.75	9.92	8.61
5	3.699	1.973	9.73	9.86	9.59
6	3.575	1.999	9.53	9.78	9.23
7	3.689	2.063	9.48	9.64	9.29
8	3.838	3.442	9.45	9.56	8.57
9	3.752	1.717	9.42	9.52	9.34
10	3.455	2.135	9.38	9.57	9.09

by ordinary geometry the average depth or thickness of the layer of metal removed from each of these electrolytically cleaned drachms in preparing the blanks. The results are shown in Table XLII together with the corresponding data on the specific gravity of the metal removed and the ratio of this to the specific gravity of the blank. It so happened that much thinner layers of metal were removed from four of these coins than from the others, and consequently they are grouped as shown in the table. For those in Group A it will be seen that both the specific gravity of the metal removed and the ratio of this to the specific gravity of the blank are much lower on the average than for those of Group B. This indicates that the layers of metal near the surface were more porous on the average than those farther below the surface. However, these results, especially the individual results for Group A, also show that the metal on, or extremely close, to the surface had a higher specific gravity, in other words was less porous, than that slightly farther below. Moreover, it is evident that the metal still farther below had a much higher specific gravity, and was much less porous, than the metal of either the top or inter-

TABLE XLII

RELATIONSHIP OF THICKNESS OF METAL REMOVED FROM DRACHMS
OF ORODES I TO SPECIFIC GRAVITIES

<i>Group</i>	<i>Coin No.</i>	<i>Average Thickness of Metal Removed mm.</i>	<i>Specific Gravity of Metal Removed</i>	<i>Ratio of Specific Gravity of Metal Removed to That of Blank</i>
A	1	0.05	9.13	0.907
	8	0.07	8.57	0.896
	4	0.08	8.61	0.868
	3	0.10	8.46	0.841
		Av. = 0.08	Av. = 8.69	Av. = 0.878
B	10	0.23	9.09	0.950
	6	0.27	9.23	0.944
	7	0.28	9.29	0.964
	5	0.29	9.59	0.973
	2	0.29	9.83	0.986
	9	0.35	9.34	0.981
		Av. = 0.29	Av. = 9.40	Av. = 0.966

mediate layers, and that the metal of the deepest layers corresponded in specific gravity to that of the solid metal of the blanks. Probably the higher specific gravity of the metal on, or extremely close, to the surface was due to mechanical consolidation of porous metal when the coins were polished. Calculations of this sort should be of value for determining what thickness of metal should be removed from ancient silver coins in order to obtain for analysis metal that is truly representative of the composition of the original alloy.

IX. SPECIFIC GRAVITY AND FINENESS OF THE COINS FROM THE HOARD

The rather satisfactory agreement (Table XXXVIII) between the corrected fineness estimated from specific gravity and that found by chemical analysis for the 10 electrolytically cleaned drachms of Orodes I from the hoard indicated that the specific gravity measurements that were made on the remaining 134 coins of the part of the hoard that was available should be a fairly reliable index of their fineness, for all these had also been cleaned in the same way. Even if incorrect results were thus obtained on a few individual coins, the results as a whole should be valid because of the considerable number of coins measured. The observed weights and specific gravities are listed in Table XLIII in decreasing order of specific gravity and fineness. The 10 coins that were analyzed are also included in this tabulation, and are indicated by asterisks. As with the coins that were analyzed, the theoretical fineness calculated from the observed specific gravity was arbitrarily raised 50 degrees for each coin in order to obtain the estimated actual fineness. Furthermore, instead of giving the fineness figures to the nearest unit as calculated, they were all rounded off to the nearest 5 degrees, for the accuracy of the method is certainly no better than this, and the appearance of fictitious accuracy is thus avoided. Actually, however, even if these figures had neither been corrected nor rounded off, the obvious conclusions about the relative fineness and range of fineness in this group of coins would have been very nearly the same.

As is shown in Table XLIV, the averages of all the results for the weight, fineness, and silver content in Table XLIII are in fairly close agreement with those for the 13 drachms of Orodes I that were analyzed chemically. They do not agree so well with those of the 10 from the hoard that were analyzed, but this is because these 10 coins were not truly representative of the large group of coins from the hoard, for it is evident that a disproportionate number of coins of low fineness happened to be selected for analysis. This selection was not entirely accidental, as relatively poor coins were naturally chosen for

TABLE XLIII

WEIGHT, SPECIFIC GRAVITY, FINENESS, AND SILVER CONTENT
OF DRACHMS OF ORODES I FROM HOARD

Serial No.	Type	Weight Grams	Specific Gravity	Fineness by Theoretical Formula	Estimated Actual Fineness	Silver Content Grams
1	A	3.92	10.10	780	830	3.25
2	A	3.97	10.09	775	825	3.28
3	A	3.94	10.08	770	820	3.23
4	A	4.01	10.07	760	810	3.25
5	A	3.91	10.05	750	800	3.13
6	A	3.90	10.03	740	790	3.08
7	A	3.89	10.03	740	790	3.07
8	A	3.82	10.03	740	790	3.02
9	A	3.85	10.01	730	780	3.00
10*	A	4.02	10.00	720	770	3.10
11	A	3.87	9.99	715	765	2.96
12	A	3.86	9.99	715	765	2.95
13	A	3.82	9.99	715	765	2.92
14	A	3.99	9.98	710	760	3.03
15	C	3.79	9.98	710	760	2.88
16	A	3.98	9.97	705	755	3.05
17	A	3.85	9.96	700	750	2.89
18	C	3.81	9.96	700	750	2.86
19	A	4.06	9.94	685	735	2.98
20	A	3.84	9.94	685	735	2.82
21	A	3.80	9.94	685	735	2.79
22	A	3.78	9.93	680	730	2.76
23	C	3.98	9.93	680	730	2.91
24	A	4.00	9.92	675	725	2.90
25	A	3.95	9.92	675	725	2.86
26	C	4.01	9.92	675	725	2.91
27	A	3.94	9.91	670	720	2.84
28	A	3.89	9.91	670	720	2.80
29*	C	3.93	9.91	670	720	2.83
30	?	3.87	9.91	670	720	2.79
31	A	3.72	9.90	665	715	2.66
32	C	3.91	9.90	665	715	2.80
33	A	4.02	9.88	650	700	2.81
34	A	3.93	9.88	650	700	2.75
35	A	3.87	9.88	650	700	2.71
36	A	3.86	9.88	650	700	2.70
37	A	3.83	9.88	650	700	2.68

Specific Gravity of Coins from Hoard

77

<i>Serial No.</i>	<i>Type</i>	<i>Weight Grams</i>	<i>Specific Gravity</i>	<i>Fineness by Theoretical Formula</i>	<i>Estimated Actual Fineness</i>	<i>Silver Content Grams</i>
38	C	3.91	9.88	650	700	2.74
39	A	3.92	9.87	645	695	2.72
40	A	3.77	9.87	645	695	2.62
41	C	3.86	9.87	645	695	2.68
42	A	3.90	9.86	640	690	2.69
43	A	3.85	9.86	640	690	2.66
44	A	3.83	9.86	640	690	2.64
45*	A	3.82	9.86	640	690	2.64
46	A	3.95	9.85	635	685	2.71
47	A	3.78	9.85	635	685	2.59
48	C	3.95	9.85	635	685	2.71
49	A	3.79	9.84	625	675	2.56
50	B	3.89	9.84	625	675	2.63
51	A	3.94	9.83	620	670	2.64
52	A	3.92	9.83	620	670	2.63
53	C	3.99	9.83	620	670	2.67
54	C	3.83	9.82	615	665	2.55
55	F	3.91	9.81	610	660	2.68
56	A	3.92	9.80	605	655	2.57
57	B	3.82	9.80	605	655	2.50
58	C	3.80	9.80	605	655	2.49
59	A	3.84	9.79	595	645	2.48
60	B	3.90	9.79	595	645	2.52
61	C	3.84	9.79	595	645	2.48
62	A	3.84	9.78	590	640	2.46
63	B	3.62	9.78	590	640	2.32
64	A	3.92	9.77	585	635	2.49
65	A	3.91	9.77	585	635	2.48
66	A	3.75	9.77	585	635	2.38
67	B	3.83	9.77	585	635	2.43
68	B	3.81	9.77	585	635	2.42
69	C	3.78	9.77	585	635	2.40
70	C	3.90	9.76	580	630	2.46
71	A	3.88	9.75	575	625	2.43
72*	B	3.85	9.75	575	625	2.41
73	B	3.78	9.75	575	625	2.36
74	C	3.97	9.75	575	625	2.48
75	A	3.97	9.74	565	615	2.44
76	B	3.90	9.74	565	615	2.40
77	?	3.77	9.74	565	615	2.32
78	A	3.88	9.73	560	610	2.37

<i>Serial No.</i>	<i>Type</i>	<i>Weight Grams</i>	<i>Specific Gravity</i>	<i>Fineness by Theoretical Formula</i>	<i>Estimated Actual Fineness</i>	<i>Silver Content Grams</i>
79	B	3.96	9.73	560	610	2.42
80*	C	3.70	9.73	560	610	2.26
81	C	3.64	9.73	560	610	2.22
82	A	3.93	9.72	555	605	2.38
83	A	3.87	9.71	550	600	2.32
84	C	3.83	9.71	550	600	2.30
85	A	3.83	9.70	540	590	2.26
86	A	3.75	9.70	540	590	2.21
87	C	3.61	9.70	540	590	2.13
88	B	3.99	9.69	535	585	2.33
89	C	3.87	9.69	535	585	2.26
90	C	3.78	9.69	535	585	2.21
91	B	4.05	9.68	530	580	2.35
92	B	3.68	9.68	530	580	2.13
93	F	3.85	9.68	530	580	2.23
94	A	3.80	9.67	525	575	2.19
95	B	3.73	9.67	525	575	2.14
96	B	3.89	9.66	515	565	2.20
97	B	3.88	9.66	515	565	2.19
98	C	3.77	9.66	515	565	2.13
99	B	3.91	9.65	510	560	2.19
100	B	3.88	9.65	510	560	2.17
101	?	3.74	9.65	510	560	2.09
102	B	4.02	9.64	505	555	2.23
103	C	3.73	9.64	505	555	2.07
104	A	3.75	9.63	495	545	2.04
105	A	3.74	9.63	495	545	2.04
106	A	3.67	9.63	495	545	2.00
107	C	3.93	9.63	495	545	2.14
108	B	3.92	9.62	490	540	2.12
109	C	3.93	9.62	490	540	2.12
110	A	3.87	9.61	485	535	2.07
111	A	3.83	9.60	480	530	2.03
112	B	4.02	9.60	480	530	2.13
113	B	3.94	9.60	480	530	2.09
114	B	3.86	9.60	480	530	2.05
115	B	3.74	9.60	480	530	1.98
116	C	3.74	9.60	480	530	1.98
117	A	3.87	9.59	470	520	2.01
118	C	3.72	9.59	470	520	1.93
119	B	3.71	9.57	460	510	1.93

Specific Gravity of Coins from Hoard

79

<i>Serial No.</i>	<i>Type</i>	<i>Weight Grams</i>	<i>Specific Gravity</i>	<i>Fineness by Theoretical Formula</i>	<i>Estimated Actual Fineness</i>	<i>Silver Content Grams</i>
120	B	3.82	9.56	455	505	1.93
121	B	3.82	9.56	455	505	1.93
122	C	3.54	9.56	455	505	1.79
123	E or F	3.92	9.56	455	505	1.98
124	A	3.84	9.55	445	495	1.90
125	B	3.84	9.55	445	495	1.90
126	B	3.58	9.55	445	495	1.77
127	C	3.89	9.55	445	495	1.93
128	B	3.85	9.54	440	490	1.89
129	B	3.90	9.53	435	485	1.89
130	B	3.86	9.53	435	485	1.87
131*	B	3.57	9.53	435	485	1.73
132	B	3.78	9.49	405	455	1.72
133	B	3.66	9.49	405	455	1.67
134	B	3.63	9.48	400	450	1.63
135*	?	3.69	9.48	400	450	1.66
136	B	3.69	9.47	395	445	1.64
137	C	3.57	9.47	395	445	1.59
138	C	3.72	9.46	390	440	1.64
139*	C	3.84	9.45	380	430	1.65
140	A	3.75	9.44	375	425	1.59
141	C	3.26	9.42	360	410	1.34
142*	?	3.75	9.42	360	410	1.54
143	C	3.77	9.40	350	400	1.51
144*	?	3.45	9.38	335	385	1.33
Av.		3.84			620	2.38

TABLE XLIV

COMPARISON OF DATA ON DRACHMS OF ORODES I THAT
WERE ANALYZED WITH DATA ON THOSE NOT ANALYZED

<i>Measurement</i>	<i>The 13 Coins That Were Analyzed</i>	<i>The 10 Coins From the Hoard That Were Analyzed</i>	<i>All the Coins From the Hoard</i>
Average Weight, Grams	3.79	3.76	3.84
Average Silver Content, Grams	2.32	2.17	2.38
Average Fineness	607	572	620
Range in Fineness	338	330	445

this purpose, and such coins were in poorer condition than the others because they were lower in fineness and had been affected more by corrosion. An entirely random selection should have provided specimens for analysis which were more representative. From the results in Table XLIII it is obvious to what extent conclusions about fineness may be in error if they are based on the assay or analysis of only one or two specimens of a type of ancient silver coin that was issued during a period of debasement. A number of representative specimens of such coins should be analyzed if entirely correct conclusions are to be reached, and it is evident from the data in Table XLIII that they could be selected on the basis of specific gravity measurements. This is another application of specific gravity measurements in the technical study of ancient coins, aside from their use as a direct index of fineness.

As might be expected, the range of fineness in the debased drachms of Orodes I found by the examination of all the specimens in the large group from the hoard is considerably greater than that found by the chemical analysis of all 13 specimens or the 10 from the hoard. This shows the importance of examining as large a number of coins of a given type as possible in order to find the entire range of variation in fineness, and also the importance of a method that will make possible the estimation of the fineness of a very large number of coins of a given type, or all the coins in a hoard, without destroying more than a few specimens by assay or chemical analysis.

The designation of the coins in Table XLIII by type is in accordance with the classification in *B. M. C. Parthia*, which is based on the nature and number of the adjunct symbols that appear in the field on the obverse of the drachms ascribed to Orodes I. Nearly all the coins in this portion of the hoard are of Type A, B, or C, and it is not unlikely that the same was true of the hoard as a whole. Only 3 coins are of other types, and 6 coins could not be certainly identified as to type because they were struck off center. There are 63 coins of Type A, 37 of Type B, and 35 of Type C, so that coins of the first type are predominant with the other two in about equal proportion. A glance at Table XLIII is sufficient to show that the coins of these three principal types differ considerably in degree and range of fineness. Data on the maximum, minimum, and average weight, fineness, and

silver content according to type are shown in Table XLV. It will be seen that the maximum, minimum, and average weights of the coins of the three types are in the descending order, A, B, C. However, both the maximum and average figures differ so little that it seems doubtful that they are significant from the standpoint of weight standards. In general, low weight is associated with low fineness and in the group of coins as a whole regardless of type there is a good correlation between fineness and weight, as is shown in Table XLVI. This suggests strongly that the coins of all three types were issued on the same weight standard and that they lost weight to different degrees by corrosion because of differences in fineness. Furthermore, the differences in weight are small as compared to the differences in fineness. All this shows that these coins were not debased by lowering the

TABLE XLV

SUMMARY OF DATA ON DRACHMS FROM HOARD ACCORDING TO TYPE

<i>Measureurent</i>	<i>Type A</i>	<i>Type B</i>	<i>Type C</i>
Maximum Weight, Grams	4.06	4.05	4.01
Minimum Weight, Grams	3.72	3.57	3.26
Average Weight, Grams	3.87	3.83	3.80
Maximum Fineness	830	675	760
Minimum Fineness	425	445	400
Average Fineness	680	550	600
Maximum Silver Content, Grams	3.28	2.63	2.88
Minimum Silver Content, Grams	1.59	1.63	1.34
Average Silver Content, Grams	2.64	2.11	2.29

TABLE XLVI

CORRELATION OF WEIGHT AND FINENESS IN DRACHMS OF THE HOARD

<i>Fineness</i>	<i>Average Weight</i> <i>Grams</i>
Above 750	3.91
750-705	3.90
700-655	3.88
650-605	3.84
600-555	3.83
550-505	3.82
500-455	3.78
450 and Below	3.65

weight standard but only by decreasing the fineness of the metal. Both the maximum fineness and average fineness of the coins of the three types are in the decending order A, C, B, but the minimum fineness is in the order B, A, C. The same holds for the silver content by weight.

The distribution of degree of fineness according to type is shown in Table XLVII for ranges or steps of both 100 degrees and 50 degrees. On Plate I the same data are shown graphically in terms of percentage of coins in each range of 50 degrees. Although it is not possible to treat these data by any strict statistical method because the numbers of the units of each type and in each category are too small, certain definite qualitative conclusions may certainly be drawn. It will be seen that a much higher proportion of the coin of Type A are in the higher ranges of fineness as compared to those of either Type B or Type C, and that, conversely, much higher proportions of the coins of these other two types are in the lower ranges. Nearly 40% of the coins of Type A are above 700 fine, none of Type B, and only about 17% of Type C. On the other hand, only about 3% of those of Type A are 500 fine or less, as contrasted to 27% of Type B and about 17% of Type C. However, there is considerable overlapping in the distribution of fineness, for over 50% of the coins of each of these types are between 700 and 500 fine. The median fineness is 695 for Type A, 555 for Type B, and 610 for Type C. There are also distinct differences in both the range and the pattern of the distribution of fineness. The range for Types A and C is about the same, but that of Type B is smaller, and the fineness of the coins of Type B is distributed in a much more regular manner.

The distribution of the silver content of the coins according to type is shown in Table XLVIII for ranges or steps of 0.40 gram and 0.20 gram. On Plate II the same data are shown graphically in terms of percentage of coins in each range of 0.20 gram. As might be expected, the distribution of silver content follows the same general pattern as the distribution of fineness, except that the pattern of the distribution of silver content is more regular for Type A but more irregular for Types B and C. The median silver content is 2.66 grams for Type A, 2.13 grams for Type B, and 2.26 grams for Type C.

However, the figures in Table XLVIII and the percentage distribution shown on Plate II are based on the present weights of the coins,

TABLE XLVII

DISTRIBUTION OF FINENESS OF DRACHMS FROM THE
HOARD ACCORDING TO TYPE

<i>Fineness</i>	<i>Number in Range</i>		
	<i>Type A</i>	<i>Type B</i>	<i>Type C</i>
850-755	15	0	1
750-655	27	2	11
650-555	13	17	12
550-455	8	16	6
450-355	0	2	5
850-805	4	0	0
800-755	11	0	1
750-705	10	0	5
700-655	17	2	6
650-605	9	8	6
600-555	4	9	6
550-505	6	8	5
500-455	1	8	1
450-405	1	2	4
400-355	0	0	1

TABLE XLVIII

DISTRIBUTION OF SILVER CONTENT OF DRACHMS FROM
THE HOARD ACCORDING TO TYPE

<i>Silver Content</i> <i>Grams</i>	<i>Number in Range</i>		
	<i>Type A</i>	<i>Type B</i>	<i>Type C</i>
3.30-3.91	16	0	2
2.90-2.51	26	2	9
2.50-2.11	13	19	14
2.10-1.71	7	13	5
1.70-1.31	1	3	5
3.30-3.11	5	0	0
3.10-2.91	11	0	2
2.90-2.71	13	0	6
2.70-2.51	13	2	3
2.50-2.31	10	10	5
2.30-2.11	3	9	9
2.10-1.91	6	6	4
1.90-1.71	1	7	1
1.70-1.51	1	3	4
1.50-1.31	0	0	1

6*

and because of the rather strong probability of a differential loss of weight from corrosion, as previously suggested, it seems likely that data more nearly representative of the original distribution of the silver content in the three types would be obtained if it were assumed that all the coins were issued on the same intended weight standard or norm. The distribution on the assumption of a uniform original weight of 4.00 grams is shown in Table XLIX, and the percentage distribution on this same assumption is shown graphically on Plate III. Of course, the same patterns of percentage distribution would be obtained regardless of what weight was assumed to be the norm. It will be seen that the patterns of distribution are now more regular than before, which might possibly be another indication that the coins of all three types were intended to be of the same weight. On the basis of this calculation, the median silver content is 2.78 grams for Type A, 2.22 grams for Type B, and 2.44 grams for Type C. Though the order of the median silver content of the three types is not changed, that of Type B is now slightly lower relative to the others, and that of Type C somewhat higher.

Even more significant, perhaps, are the similar differences in the fineness and silver content of drachms of the three types with the same monogram or mintmark. In Table L are shown figures for the fineness and silver content of drachms of these types with the monogram $\overline{\text{A}}$, and in Table LI are shown the figures for those with the monogram $\overline{\text{B}}$. It will be seen that here again the drachms of Type A have the highest maximum and average fineness and the highest maximum and average silver content, and that those of Type C are next in order, with those of Type B last. However, the average fineness and silver content of the drachms of Types A and C with the monogram $\overline{\text{A}}$ are so close that the differences may not be significant. The drachms of Type C have the highest minimum fineness, with those of Type A next, and those of Type B last. The range of fineness and silver content of the drachms of Type A is the greatest, with those of Type B next in order, and those of Type C last. It might be supposed that the different ranges shown in Table L are simply the result of the different number of coins of each type, but this does not seem to be true, for the order is the same in Table LI where the numbers are nearly the same. Drachms bearing other monograms or

TABLE XLIX

DISTRIBUTION OF SILVER CONTENT OF DRACHMS FROM
THE HOARD ACCORDING TO TYPE ON THE ASSUMPTION
THAT THE COINS HAD THE SAME ORIGINAL WEIGHT

<i>Silver Content</i> <i>Grams</i>	<i>Number in Range</i>		
	<i>Type A</i>	<i>Type B</i>	<i>Type C</i>
3.50-3.11	9	0	0
3.10-2.71	29	0	9
2.70-2.31	16	13	13
2.30-1.91	8	20	8
1.90-1.51	1	4	5
3.50-3.31	1	0	0
3.30-3.11	8	0	0
3.10-2.91	11	0	3
2.90-2.71	18	0	6
2.70-2.51	9	6	6
2.50-2.31	7	7	7
2.30-2.11	6	11	5
2.10-1.91	2	9	3
1.90-1.71	0	4	3
1.70-1.51	1	0	2

mintmarks show like trends for the differences in fineness and silver content among the coins of the three types, but similar complete comparisons are not possible, as one or two of the types of such drachms with a given monogram either are missing or are too few in number.

To what extent the observed differences in fineness and silver content among the three principal types of drachms from the hoard are significant from the numismatic standpoint depends largely on whether the coins of the lot studied in this investigation are truly representative of the fineness of the coins of these three types in the entire hoard, whether those in the hoard were truly representative of the fineness of those in circulation, and whether the coins of the three types available to the hoarder were truly representative of the whole issue of these three types, or at least the issue up to the time the hoard was completed. It is known that the part of the hoard purchased by Dr. J. Christy Wilson contained a representative selection of the coins of the hoard, that most of this part was acquired by the

TABLE L

FINENESS AND SILVER CONTENT OF DRACHMS
OF THE THREE TYPES WITH MINTMARK $\overline{\text{A}}$

<i>Measurement</i>	<i>Type A</i>	<i>Type B</i>	<i>Type C</i>
<i>Number of Coins in Group</i>	36	22	7
Maximum Fineness	790	675	760
Minimum Fineness	495	455	585
Average Fineness	670	550	655
Range in Fineness	345	220	175
Maximum Silver Content, Grams	3.07	2.63	2.88
Minimum Silver Content, Grams	1.90	1.72	2.26
Average Silver Content, Grams	2.61	2.10	2.56
Range in Silver Content, Grams	1.17	0.91	0.62

References in B. M. C. Parthia

Type A. Pp. 74-75, Nos. 38-45; Plate XV, Nos. 3 and 4.

Type B. P. 79, No. 93; Plate XVI, No. 1.

Type C. Pp. 82-83, Nos. 123-126; Plate XVI, No. 10.

TABLE LI

FINENESS AND SILVER CONTENT OF DRACHMS
OF THE THREE TYPES WITH MINTMARK ΣP

<i>Measurement</i>	<i>Type A</i>	<i>Type B</i>	<i>Type C</i>
<i>Number of Coins in Group</i>	8	6	6
Maximum Fineness	825	635	730
Minimum Fineness	545	445	610
Average Fineness	715	530	670
Range in Fineness	280	190	120
Maximum Silver Content, Grams	3.28	2.43	2.91
Minimum Silver Content, Grams	2.04	1.64	2.22
Average Silver Content, Grams	2.80	1.99	2.58
Range in Silver Content, Grams	1.24	0.79	0.69

References in B. M. C. Parthia

Type A. P. 75, No. 55; Plate XV, No. 5.

Type B. P. 81, No. 112.

Type C. P. 84, No. 144.

Princeton University Library, and that the 135 coins of the three types studied in this investigation constituted the major part of the lot at Princeton. However, 31 of the finest specimens of all types of

the drachms of Orodes I were placed in the collection there and were not included in the present investigation. Because of their fine state of preservation, these selected coins are probably higher in fineness on the average than the remainder classed as duplicates. However, not all of these selected coins were of Types A, B, and C, and since the number of coins of these types thus excluded is small compared to the 135 that were examined, it is likely that the results here obtained would have been little changed if they had been included. Possibly the ranges of fineness and silver content would have been slightly extended upwards for each type, with a corresponding slight increase in the average fineness and silver content, but it is doubtful that there would have been any appreciable change in the relative fineness and silver content of the coins of the three types. On the whole, therefore, it is highly probable that the lot here studied is fairly representative of these coins in the hoard. Whether those in the hoard represent the entire range of fineness and the true average fineness of any or all these types is quite uncertain for a variety of reasons. The period during which the hoard was assembled may have coincided with the entire period of the issue of one of these types and not of the other two, or of two of them and not the remaining one. Moreover, the coins may have been collected at irregular intervals, that is, many more at one time than at another, although the rather regular percentage distribution of the fineness and corrected silver content of the coins of the three types seems to indicate the contrary. It is also possible that the hoarder preferentially selected coins of one or two of these types, so that their relative numbers in the lot here investigated, and hence in the hoard itself, bear no relationship to the relative abundance of the types available to the hoarder, or to the abundance of these types in general. However, selection on this basis does not seem probable. That there was any selection on the basis of fineness is very improbable, since the new or relatively new coins coming into the hands of the hoarder would have had the same superficial appearance regardless of differences in fineness. On the whole, it seems rather probable that the coins of the large lot here investigated are fairly representative of the relative fineness of the coins of these three types available to the hoarder.

In spite of the uncertainties just discussed, some definite con-

clusions of numismatic significance may be based on the technical data obtained on the coins of the lot from the hoard. It has already been demonstrated from the chemical analyses that these coins were debased. The specific gravity measurements indicate the same fact, for these show that about 15% of the coins as a whole are composed of billon, or about 3% of Type A, about 27% of Type B, and about 17% of Type C. The chemical analyses show that the coins were deliberately debased, and the wide range of fineness of all these coins and of the coins of each of these three types is also an indication of deliberate debasement, for it is very improbable that such a wide variation in the proportion of silver could have been caused by mere carelessness on the part of the coiners. According to the evidence at present available, ancient coiners in general were able to control the fineness of silver coins within rather narrow limits, and no lack of proper control is indicated for other Parthian issues. The debasement of these coins differs in one important respect from the debasement of other series of ancient silver coins about which we have sufficient information. The debasement of Roman Imperial denarii, Alexandrian tetradrachms, and Parthian tetradrachms followed a slow progressive course that extended over some two centuries, but the debasement of these Parthian drachms of Orodes I obviously occurred in a much shorter time. Since his whole coinage extended over a period of twenty years at the most, and consisted of a considerable number of classes or types that were evidently issued in some sort of systematic chronological order, the period of issue of each class or type must necessarily have been brief, and for some of them it may have been less than a year. This means that some extraordinary circumstances must have caused the severe and very rapid debasement of the drachms of each of the three types here considered.

In general, as is shown by various examples in the history of modern states, the rapid and severe debasement of a coinage is usually caused by the disruption of economic life that accompanies or follows intensive warfare, and there is no reason to suppose that the same cause and effect were not operative in ancient states such as Parthia. It is known that the first part of the reign of Orodes I was a time of great civil strife between Orodes and his brother Mithradates III. In-

deed, according to McDowell,¹⁷ the supreme power alternated between the two brothers. At the death of their father Phraates III, Mithradates succeeded to the throne in 57 B.C. but was soon deposed by Orodes. In the next year Mithradates seized the throne but after a short interval Orodes again became the supreme ruler, and, finally, on the death of his brother in 54 B.C. became the sole ruler. In the very next year the first serious military clashes began between the Parthian and Roman empires, for at that time Parthia was invaded by the army of the Roman Proconsul Crassus who was decisively defeated at the battle of Carrhae in 53 B.C.¹⁸ This was soon followed by the Parthian invasion of Syria in 51–50 B.C. Thus the civil wars were followed by foreign wars, and this severe and prolonged warfare may have been in itself a sufficient primary cause of the debasement of the coinage.

The rate of issue of Parthian drachms, in other words the volume of these coins coming into circulation, appears from the available evidence to have been unusually high during the reign of Orodes I. McDowell¹⁹ states that a slow steady increase in rate of issue occurred up to the reign of Phraates III, and that from about 70 B.C. to 38/37 B.C. the rate abruptly increased about threefold. During the reign of Phraates IV (37–3/2 B.C.) the rate dropped back to about what it had been prior to 70 B.C., and after this the rate of issue of drachms remained uniform at a still lower level. McDowell²⁰ attributes the unusually high rate of issue to greatly increased transit trade between Iran and Central Asia, India, and China. The closer control by Parthia under Orodes I of trade outlets to the Mediterranean may have further increased such commerce and the volume of coinage required. Nevertheless, the military events between 57 B.C. and 50 B.C. may have had the major influence on the volume of coinage required by the economic situation during the reign of Orodes I. It may well have been that the available supply of pure silver simply could not keep pace with the increased demand for coins during his reign. Since

¹⁷ McDowell, R. H., *Coins from Seleucia on the Tigris*, pp. 215–216. McDowell designates this Orodes as Orodes II in view of the possibility that there was a previous Orodes, who was a son of Mithradates II, and who ruled briefly about 80 B.C.

¹⁸ Sykes, P. M., *A History of Persia* (London, 1915), I, pp. 373–380.

¹⁹ *Op. cit.*, pp. 170–171.

²⁰ *Op. cit.* p. 200.

there was no reduction of the weight standard for the drachm, the only way by which the demand could then be met would be by the debasement of the coinage silver.

From McDowell's interpretation²¹ of the significance of the legends on the reverse of the drachms of Mithradates III and Orodes, from his attribution of certain classes or types to one ruler or the other, from the legends on the drachms of Types A, B, and C of the lot here considered, and from catalogue descriptions of other drachms of these types, it would appear that they all belong to his fourth class for Orodes and were not issued before Orodes became sole ruler in 54 B.C. That the drachms of these three types were issued concurrently to any extent is doubtful in view of the presence of so many of the same mintmarks on the drachms of all three types. Though only a few of the same mintmarks occur in the drachms of all three types in this lot, the listings in various catalogues show clearly enough that a large proportion of the principal or more common mintmarks occur on all three types and that others appear on two of the types. Since the find spot of the hoard, which this lot represents, lies in the far north-western corner of the region occupied by the Parthian Empire and since the hoard was evidently accumulated during a short period of time, it is hardly to be expected that this lot would contain drachms of all three types from all the numerous mints. The presence of mintmarks common to all three types is therefore indicative of their consecutive issue, for it seems very unlikely that the same mint would issue drachms of different types simultaneously. Nevertheless, because of slowness of communications, or some other cause, there may have been some overlapping of the periods of issue of the drachms of these types at the various mints considered as a whole.

It seems rather probable that the issue of the earliest of these types began in 54 B.C. or very shortly after, for this would seem to be the first issue of drachms after Orodes became sole ruler in that year. When the issue of the latest of the three types terminated is less easy to estimate, as information is lacking on the length of period of issue of any of these types. Possibly the different ranges of fineness or silver content of the drachms of the three types from two of the mints, shown in Tables L and LI, are a clue to the relative lengths of

²¹ *Op. cit.*, pp. 213-214.

the periods of issue. If debasement occurred at about the same rate for each of these types, a greater range of fineness or silver content would indicate a longer period of issue. On this assumption, the drachms of Type A would appear to have been issued over a longer period than those of either Type B or Type C, and those of Type B over a longer period than those of Type C. The ranges of fineness and silver content of the drachms of the three types in the entire lot, shown by the data in Tables XLV, XLVII, XLVIII, and XLIX, would also appear to indicate that those of Type A were issued over a longer period than those of Types B or C. However, the same data also appear to indicate that those of Type C were issued over a longer period than those of Type B. The larger number (63) of drachms of Type A in the lot may also be indicative of a longer period of issue for the coins of this type, whereas the approximately equal numbers (37 and 35, respectively) of the drachms of Type B and Type C may be indicative of shorter and approximately equal periods of issue. However, these numbers are a valid index of the relative periods of issue only if the rate of issue of the drachms of each type was about equal and if the drachms of the lot are a truly representative sample of the numbers of drachms of these types that were issued. On the whole, it seems probable that the drachms of Type A were issued over a longer period than those of either of the other two types, and that the lengths of the periods of issue of the drachms of Types B and C relative to each other is uncertain. However, the periods of issue of both were probably short, and the total length of the periods of issue of the drachms of these two types may have been about the same as that for the drachms of Type A alone. Since there were still other classes or types of drachms of Oroses I that were evidently issued later in the reign of this ruler, the issue of the latest of the Types A, B, and C must have terminated considerably before the end of his reign. It may have been as early as 50 B.C. or as late as 40 B.C., though some intermediate date such as 45 B.C. is probably nearer the truth.

The order of the issue of Types A, B, and C cannot be established with certainty from the technical data. However, since a higher fineness and silver content is normally associated with an earlier time of issue when debasement occurs during the reign of a ruler, the drachms of Type A would clearly appear, from the data in Tables XLIII,

XLV, XLVII, XLVIII, XLIX, L, and LI, to be the first in time of issue. No such clear distinction of order of issue for Types B and C is apparent from these same data. The higher average fineness and silver content of the drachms of Type C seems to be an indication that they were issued before those of Type B. On the other hand, the most debased drachms in the lot are of Type C, and this would appear to indicate the reverse order. The truth may be that the consecutive periods of issue of the drachms of these two types were so brief that no clear distinction as to order of issue should be expected from the data on their fineness or silver content. In general, the technical data tend to support the commonly accepted order.

There are so few examples of the other, and evidently later, types of drachms of Orodes I in this lot from the hoard that nothing certain can be concluded about the average fineness or range of fineness of drachms of these types. To those in Table XLIII definitely identified as to later type should be added at least some of the coins of questionable type, as certain of these were clearly of types other than A, B, or C, even though their exact type could not be more precisely established. As may be seen from this table, all the possible examples of drachms of later types are of medium to low fineness, and that the best one is exceeded in fineness by about 65% of the drachms of Type A. The indication is that the drachms of these types were at least as debased as the drachms of Types B or C, and probably more so. The very small proportion of later types of drachms of Orodes I in the lot, and presumably in the hoard itself, is an indication that the hoard was buried, or at least completed, shortly after the issue of drachms of Types A, B, and C had terminated and before any large number of drachms of later types had come into circulation, unless, indeed, the rate of issue of drachms of these later types was abnormally low. However, since the number of coins issued during a period of debasement tends to increase rather than decrease towards the end of the period, an abnormally low rate of issue does not seem at all probable. Therefore, it is likely that this hoard was completed before the end of the reign of Orodes I, perhaps by 40 B.C. at the latest. The very high proportion of drachms of Types A, B, and C, and the small proportion of earlier drachms indicates that the accumulation of the hoard was begun in the period when the drachms of these types were

being issued, in other words not before about 54 B.C. Hence the longest possible period of time during which this hoard was accumulated would seem to be the 15 years from 54 B.C. to 40 B.C., inclusive. However, it is rather probable that the period was actually shorter.

The marked debasement of his coinage may explain why so many different types of drachms of Orodes I were issued even after he had gained sole control of Parthia. If the drachms of one particular type had met with full acceptance, need for a variety of types would not have arisen, especially since the innate conservatism of eastern peoples as regards types of coins that are preferred would have strongly favored the continuation of drachms of one fixed type. However, if the drachms of a particular type issued early in his reign were progressively debased during the period of their issue, and if the more debased drachms were detected, as might well happen after brief circulation, then public acceptance of the coins of this particular type would lessen. The obvious remedy would be to change the type noticeably but not radically and begin a new issue on a higher standard than these more debased coins, and perhaps with provision for redemption of the latter. If the drachms of this new type were in turn progressively debased, then the same remedy could be applied again, and be repeated through a series of types. The technical data, especially the marked overlapping of the ranges of fineness of Types A, B, and C, supports this theory.

X. RECOMMENDED GENERAL PROCEDURE
FOR THE ESTIMATION OF THE FINENESS
OF ANCIENT SILVER COINS
BY MEANS OF SPECIFIC GRAVITY MEASUREMENTS

This whole study of the validity and utility of specific gravity measurements for the estimation of the fineness of ancient silver coins, especially the method followed in the investigation of the fineness of the group of coins from the hoard, indicates the general procedure that should give the best results for the estimation of the average fineness and range of fineness of a large number of specimens of coins of a given type or series, or of a large number of coins from a hoard. In the first place, the reliability of the results that are obtained depends on the condition, fineness, and weight of the coins that are studied. No worth while results can be expected from coins that are badly corroded either externally or internally. All coins to be investigated by this procedure should be cleaned by electrolysis, except possibly coins of very high fineness, which apparently may be cleaned adequately by chemical or even mechanical methods. Occasionally lacquered coins may be encountered from which the lacquer must be removed by an appropriate solvent. Coins of very low fineness, i.e. billon coins of poor quality, cannot be expected to yield reliable results. Nor can reliable results be obtained on very small coins, such as the obol and its fractions, because of the technical difficulty of determining their specific gravity with sufficient accuracy.

The determinations of specific gravity should be made with apparatus, materials, and a manipulative technique that make possible such determinations accurately through the second decimal place. The necessary apparatus and materials are here listed.

Apparatus

1. An analytical balance that is sensitive to at least 0.2 milligram.
2. A good set of analytical weights, preferably a set that has been recently calibrated.

Fineness of Coins from Specific Gravity Measurements 95

3. A bridge of metal or wood that straddles the left pan of the balance and supports the vessel of water in which the coin is weighed.
4. A glass beaker or jar with a capacity of about 250 ml.
5. An all-glass chemical wash bottle designed to hold acetone or other suitable solvent. A small pipette may be substituted for this.
6. A chemical thermometer.

Materials

1. Copper or silver wire of very small diameter. The smaller the diameter of the wire the better it will be for the purpose, as long as it is strong enough to support the weight of a coin. Wire coarser than No. 30 B. and S. gauge should not be used. When a large number of determinations are to be made on coins of about the same size a very convenient device is a narrow cradle or basket fashioned from heavier and more rigid wire in which a coin will be held vertically. This is attached to the very fine suspension wire and avoids the time and trouble involved in attaching each coin separately to a fine suspension wire. Such a wire cradle is best made with smooth soldered joints to avoid the possibility of inclusion of minute air bubbles in twisted wire connections when this device is immersed in water. It should be of such a size that no part of it reaches the surface of the water when it is immersed.
2. Distilled water. This should be freshly boiled and cooled to 25° C. just before being used for a series of determinations on any given day. The purpose of boiling is to expel dissolved air which may be released while a coin is being weighed in the water and become attached to the coin or suspension wire as bubbles that are troublesome to remove.
3. Acetone. Ethyl ether may also be used.

The first step in finding the specific gravity of a coin is the determination of its weight in air accurately through the third decimal place in grams. This involves weighing to the fourth decimal place with sufficient care to establish the figure in the third place with entire certainty. The coin is then attached to one end of a fine suspension wire or is placed in a wire weighing cradle attached to such a wire. For this purpose the wire may be attached adequately by wrapping one turn tightly around the coin in one direction, crossing the wire with a single twist at the center of the coin, wrapping another single turn at right angles to the first, and attaching the short end of the wire to the long end with a single twist at the edge of the coin. Any excess of the short end is then broken or cut off. The application of more than single turns of wire is neither necessary nor desirable.

A loop for attachment to the suspension hook above the left pan of the balance is then made in the long end of the wire at such a point that the coin will be suspended in the middle of the glass vessel for the water when the balance is at rest. Any excess of wire is broken or cut off. The coin and suspension arrangement are rinsed with acetone or ether by directing a stream of the solvent from a wash bottle or pipette at a point just below the suspension loop and allowing it to run down over the entire coin. Not more than 10 ml. is needed. The purpose of rinsing with such a solvent is to remove any grease or oil that originally may be on the coin or wire or that may be transferred to them while handling. Such grease or oil may prevent the wetting of the metal by the water and cause the formation of adherent air bubbles or films. As soon as the solvent has completely evaporated, the glass vessel is placed on the bridge, the coin is suspended from the hook, and distilled water, previously boiled and cooled to 25° C., is poured into the jar until the level of the liquid is so high that no part of the coin or the supporting wire immediately around it will reach the surface of the liquid when the balance beam swings. Any air bubbles present on the coin or submerged wire are removed by touching them with the end of a piece of wire. The weight of the coin and its suspension arrangement in water is then determined by taking the average of at least three weighings. In making these weighings the swing of the beam of the balance should be small, and the point of equilibrium should be approached from both directions, i.e., in one weighing, weights are selected such that their total weight is slightly more than is necessary to balance the coin and its suspension arrangement, and then weight is cautiously removed until equilibrium is reached, whereas in the next weighing the total weight is first slightly less, and weight is added until equilibrium is reached. Ordinarily, the final adjustment is made with the balance rider, or on some balances with a weight chain. The average of these weighings should be expressed through the third decimal place in grams. The coin is then removed and the weight of the empty suspension arrangement in water is determined in the same way. Care should be taken that the level of the water is at the same point on the fine suspension wire as when the coin was present. The original level of the water may be conveniently marked on the outside of the glass vessel by means of a

wax pencil before the coin is removed. With a small coin no significant drop in water level occurs when it is removed, but with a large coin it is necessary to add a small volume of water to compensate for the drop in level.

To calculate the specific gravity, the average weight of the suspension arrangement in water is first subtracted from the average weight of the coin plus its suspension arrangement in water. This gives the weight of the coin alone in water. Then this weight is subtracted from the weight of the coin in air, and the result is divided into the weight of the coin in air. The result of this division is the specific gravity at 25° C. as compared to water at this temperature, and it should be expressed through the second decimal place.

The theoretical fineness, expressed to the nearest 5 units, corresponding to any specific gravity in the range likely to be encountered,

TABLE LII
THEORETICAL RELATIONSHIP BETWEEN THE SPECIFIC GRAVITY AND THE FINENESS OF SILVER COINS

<i>Specific Gravity</i>	<i>Fineness</i>	<i>Specific Gravity</i>	<i>Fineness</i>
10.50	1000	10.29	885
10.49	995	10.28	880
10.48	990	10.27	875
10.47	985	10.26	870
10.46	980	10.25	865
10.45	975	10.24	860
10.44	970	10.23	855
10.43	965	10.22	850
10.42	960	10.21	840
10.41	950	10.20	835
10.40	945	10.19	830
10.39	940	10.18	825
10.38	935	10.17	820
10.37	930	10.16	815
10.36	925	10.15	810
10.35	920	10.14	805
10.34	915	10.13	795
10.33	910	10.12	790
10.32	905	10.11	785
10.31	895	10.10	780
10.30	890	10.09	775

<i>Specific Gravity</i>	<i>Fineness</i>	<i>Specific Gravity</i>	<i>Fineness</i>
10.08	770	9.66	515
10.07	760	9.65	510
10.06	755	9.64	505
10.05	750	9.63	495
10.04	745	9.62	490
10.03	740	9.61	485
10.02	735	9.60	480
10.01	730	9.59	470
10.00	720	9.58	465
9.99	715	9.57	460
9.98	710	9.56	455
9.97	705	9.55	445
9.96	700	9.54	440
9.95	695	9.53	435
9.94	685	9.52	425
9.93	680	9.51	420
9.92	675	9.50	415
9.91	670	9.49	405
9.90	665	9.48	400
9.89	655	9.47	395
9.88	650	9.46	390
9.87	645	9.45	380
9.86	640	9.44	375
9.85	635	9.43	370
9.84	625	9.42	360
9.83	620	9.41	355
9.82	615	9.40	350
9.81	610	9.39	340
9.80	605	9.38	335
9.79	595	9.37	330
9.78	590	9.36	325
9.77	585	9.35	315
9.76	580	9.34	310
9.75	575	9.33	300
9.74	565	9.32	295
9.73	560	9.31	290
9.72	555	9.30	280
9.71	550	9.29	275
9.70	540	9.28	270
9.69	535	9.27	260
9.68	530	9.26	255
9.67	525	9.25	250

Fineness of Coins from Specific Gravity Measurements 99

is shown in Table LII. This table was constructed on the basis of the theoretical formula by taking 10.50 as the specific gravity of pure silver and 8.90 that of pure copper, both at 25° C. as compared to water at this temperature. If the observed specific gravities are very high, i.e., above 10.35, the fineness thus found may safely be assumed to be about the same as the actual fineness. If they are below this figure, certain coins of the group should be selected for determinations of their actual fineness by fire assay or chemical analysis. When the observed specific gravities are all about the same, only two or three typical coins need be sacrificed for this purpose, but when they are widely spread, more coins should be selected, at least one for each 0.10 unit range in specific gravity. The differences between the actual figures and the theoretical figures for the fineness of these representative coins then gives a correction that should be applied to the figures for the theoretical fineness of all the coins in the group in order to obtain their estimated actual fineness. This correction may be constant throughout a given group or it may be different at different ranges of specific gravity.

In conclusion it may be remarked that our present knowledge of the fineness of many types and series of ancient silver coins is fragmentary and unreliable, and that the general procedure here described provides a practical means of improving our knowledge in this respect without destroying the large number of irreplaceable ancient coins which otherwise would be necessary.

PLATES

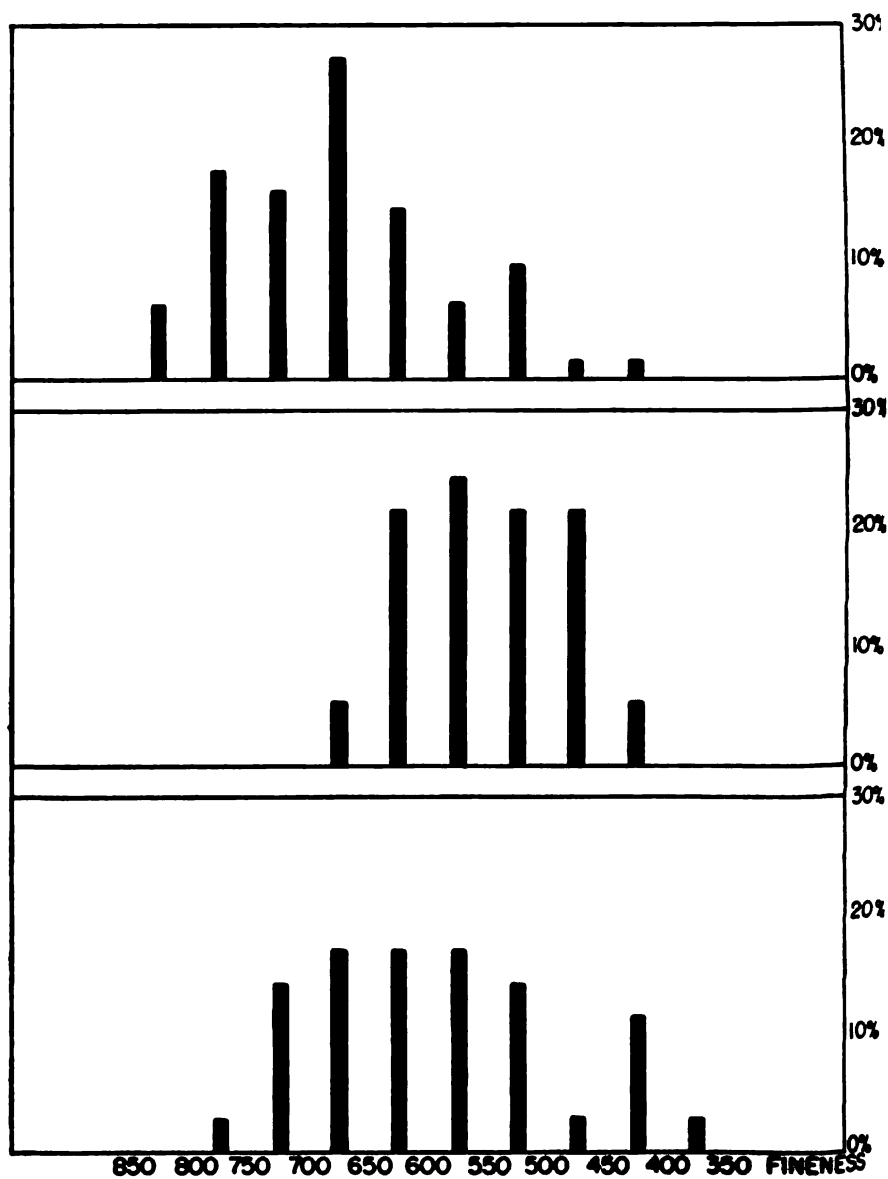


PLATE I

PERCENTAGE DISTRIBUTION ACCORDING TO FINENESS
OF DRACHMS OF TYPES A, B, C AND FROM HOARD

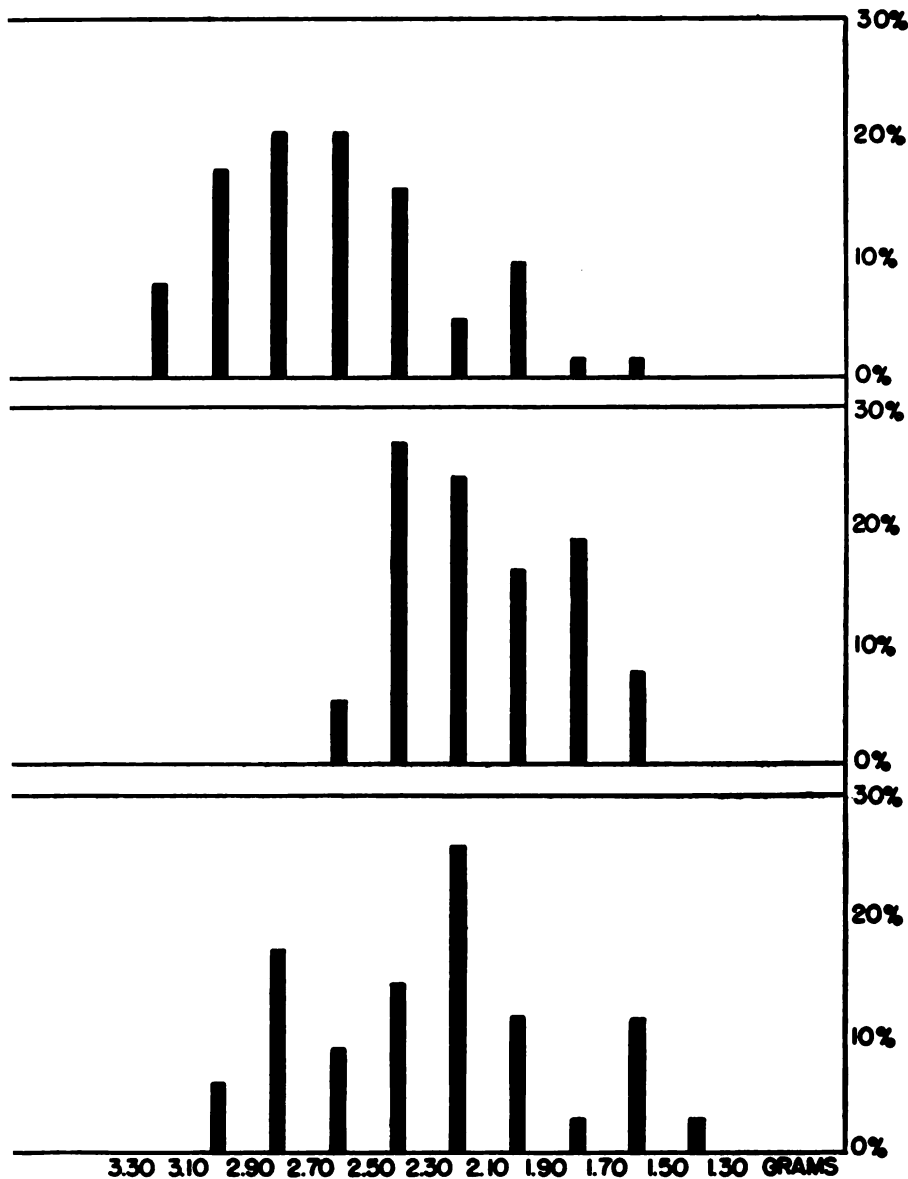


PLATE II
PERCENTAGE DISTRIBUTION ACCORDING TO SILVER
CONTENT OF DRACHMS OF TYPES A, B, AND C FROM HOARD

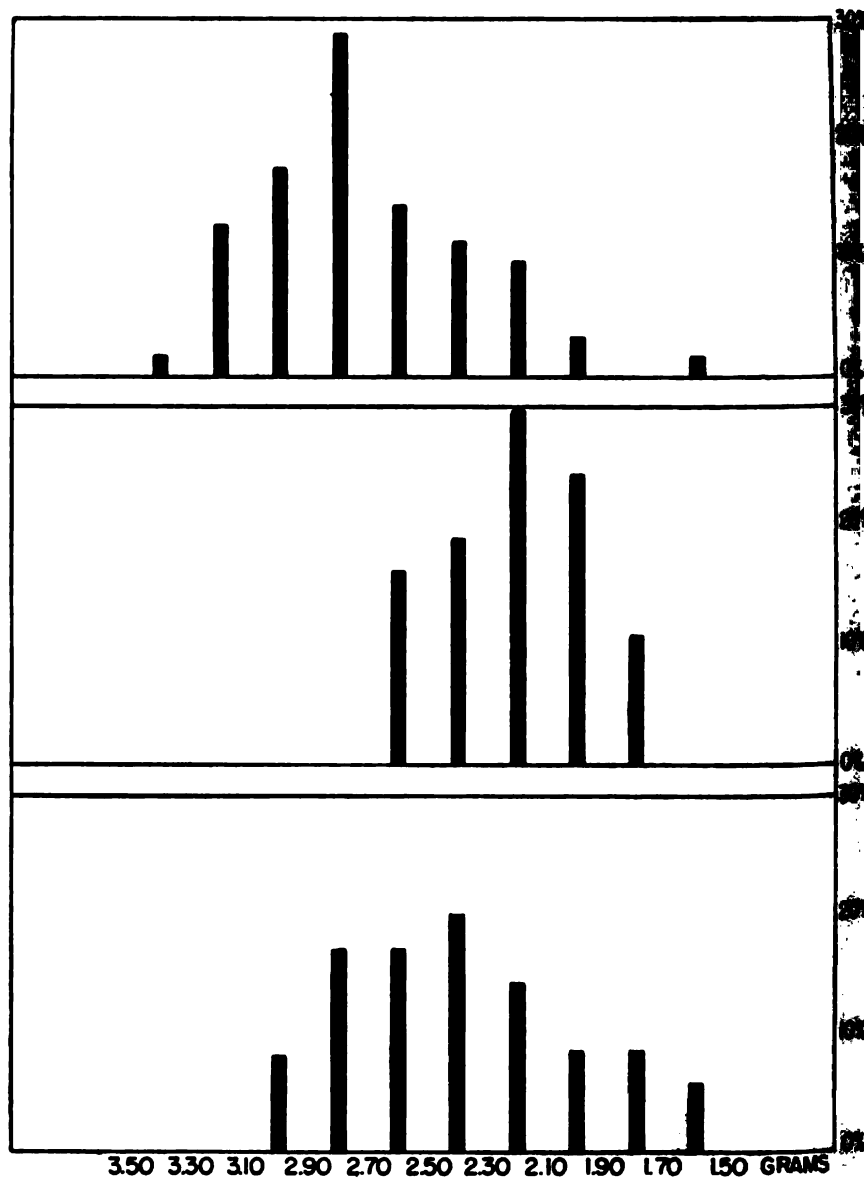


PLATE III

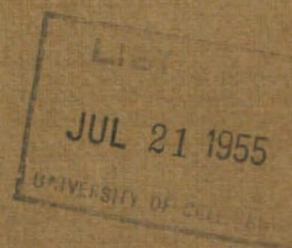
PERCENTAGE DISTRIBUTION ACCORDING TO CORRECTED SILVER
CONTENT OF DRACHMS OF TYPES A, B, AND C FROM HOARD

21
NUMISMATIC NOTES AND MONOGRAPHS

No. 130

STUDIES IN THE
NUMISMATIC HISTORY
OF GEORGIA
IN TRANSCAUCASIA

By DAVID M. LANG



THE AMERICAN NUMISMATIC SOCIETY

NEW YORK

1955

THE AMERICAN NUMISMATIC SOCIETY

Founded 1858 • Incorporated 1865

BROADWAY BETWEEN 155TH & 156TH STREETS
NEW YORK 32, N. Y.

PURPOSES: The Society was founded for the collection and preservation of coins and medals and for the investigation of their history and other subjects connected therewith.

MEMBERSHIP: Applications for membership are welcomed from all interested in numismatics. Inquiries regarding membership should be addressed to the Secretary of the Society.

DUES: The annual dues for an Associate Membership are \$7.50. Issues of the *Notes and Monographs*, *Museum Notes*, *Hispanic Numismatic Series*, and *Numismatic Literature* are distributed to all members.

PUBLICATIONS: The *Numismatic Notes and Monographs* consist of separately issued papers, each on a single topic, of which two to four numbers appear each year. *The American Numismatic Society Museum Notes* is a publication, irregular in appearance, consisting of brief notes and papers, principally on items in the Society's collections. *Numismatic Literature* is a quarterly listing current numismatic publications with abstracts of their content. *Numismatic Studies* is a series which accommodates works of full book length. The *Hispanic Numismatic Series*, published in co-operation with the Hispanic Society of America, consists of publications devoted to the coinage of the Iberian Peninsula, and is based on the collections of the Hispanic Society.

MUSEUM: The Society maintains a museum located in uptown Manhattan, New York City, which houses its offices, collections and library. Collections embrace coins of all periods from their inception to modern times, medals and decorations. Selections from its cabinets are on display in an exhibition. The library, consisting of about 15,000 volumes, covers all branches of numismatics.

The Museum is open to Members and the public on Tuesdays, Wednesdays, Thursdays, Fridays and Saturdays. It is closed on Sundays and Mondays and the following holidays: New Year's Day, Lincoln's Birthday, Washington's Birthday, Memorial Day, Independence Day, Election Day, Thanksgiving Day and Christmas Day. The hours of the Library are from 9 A.M. to 5 P.M. The public exhibition is open from 2 to 5 P.M.

NUMISMATIC NOTES AND MONOGRAPHS

Number 130

NUMISMATIC NOTES AND MONOGRAPHS
is devoted to essays and treatises on subjects relating
to coins, paper money, medals and decorations.

PUBLICATION COMMITTEE

A. CARSON SIMPSON, *Chairman*

ALFRED R. BELLINGER

AGNES BALDWIN BRETT

THOMAS O. MABBOTT

THEODOR E. MOMMSEN

SAWYER MCA. MOSSER, *Editor*

Studies in the Numismatic History of Georgia in Transcaucasia

Based on the Collection of
The American Numismatic Society

BY DAVID M. LANG



THE AMERICAN NUMISMATIC SOCIETY
NEW YORK

1955

**ALL RIGHTS RESERVED BY
THE AMERICAN NUMISMATIC SOCIETY**

**PRINTED IN GERMANY
AT J.J. AUGUSTIN · GLÜCKSTADT**

CONTENTS

PREFACE	vii
I. INTRODUCTORY	I
II. THE CLASSICAL PERIOD	6
III. SASANIAN AND ARAB DOMINATION	12
IV. THE GOLDEN AGE OF THE BAGRATIDS	18
V. GEORGIA UNDER THE MONGOLS	34
VI. GEORGIA AND THE EMPIRE OF TREBIZOND	81
VII. THE POST-TIMURID PERIOD	88
VIII. GEORGIA AND THE SAFAVIS	90
IX. THE COINAGE OF THE HOUSE OF MUKHRAN	95
X. GEORGIA UNDER OTTOMAN OCCUPATION	98
XI. NĀDIR SHAH IN GEORGIA	102
XII. THE LAST BAGRATIDS	106
XIII. THE RUSSO-GEORGIAN SERIES	117
BIBLIOGRAPHY	126
GENERAL INDEX.....	132

PREFACE

This work does not pretend to be a complete repertory of Georgian coinage. Such a publication would require many years of research with access to collections in the Soviet Union not at present available to Western scholars. But it should not be assumed that no fresh material is available to students in the West. The Museum of The American Numismatic Society, particularly since its acquisition of the collection of the late General Vsevolod Starosselsky, commander of the Persian Cossack Brigade, now possesses an exceptional range of coins, representing almost every period of Georgian numismatic history. No description of this section of the Museum's collection has ever been published. It is with a view to acquainting numismatists with the interest presented by this collection in particular, and by the monetary series of Georgia in general, that this monograph has been undertaken.

The work could not have been even contemplated without the guidance of Dr. George C. Miles, Chief Curator of the ANS Museum. In addition to giving unstinted advice on many problems of a technical order, Dr. Miles has undertaken virtually the entire work of decipherment and verification of the Arabic and Persian legends which occur on the majority of Georgian monetary issues. While acknowledging his great indebtedness to Dr. Miles' collaboration, the author accepts full responsibility for the defects of the present work.

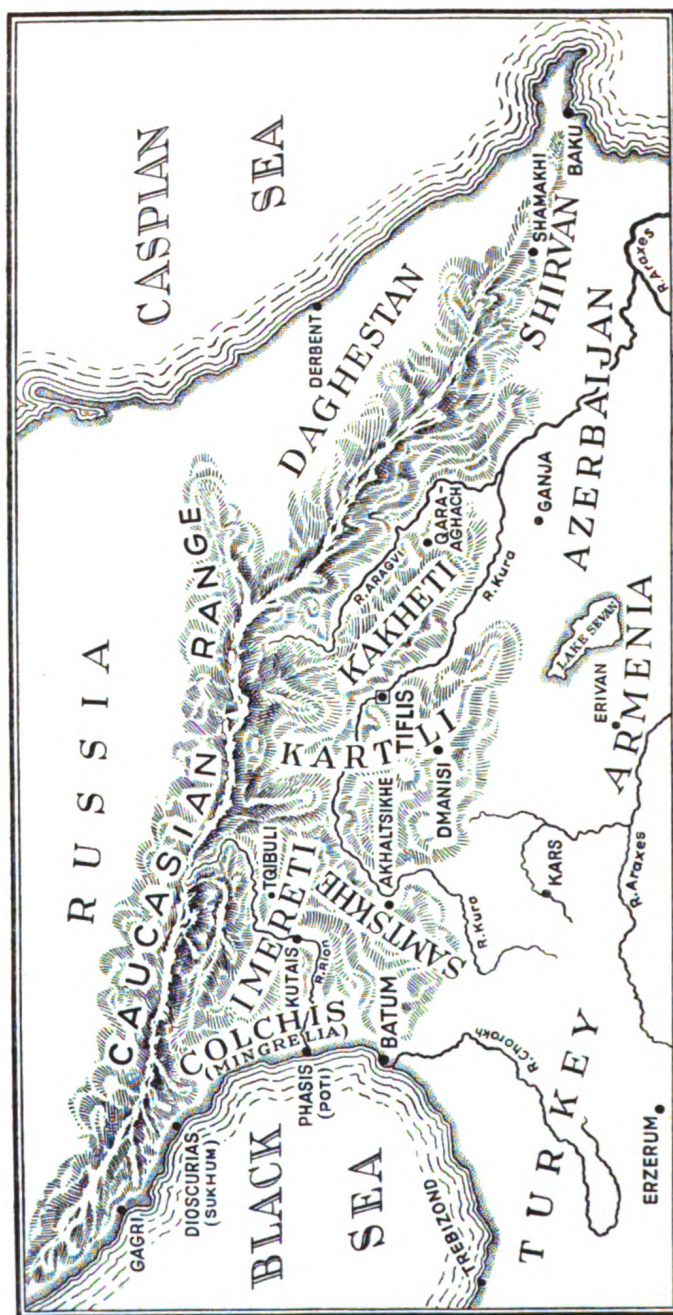
The most generous facilities have been received from every department of the Museum. This kindness is the more appreciated since the research was carried out at a time when major structural alterations to the building imposed additional strain on the staff of the Museum.

Grateful acknowledgement is made to the Russian Institute of Columbia University, which granted to the writer a Senior Fellowship in Georgian Studies for the year 1952-53, and to the colleagues and friends in New York and Washington who have given information and access to coins in their possession; also to Dr. John Walker, Keeper of Coins and Medals in the British Museum, who kindly checked the work in proof.

The GEORGIAN ALPHABET

No.	KHUTSURI (Ecclesiastical Capitals)	MKHEDRULI (Modern Alphabet)	Transliteration	Numerical Value
1	Ⴀ	ა	<i>a</i>	1
2	Ⴁ	ბ	<i>b</i>	2
3	Ⴂ	გ	<i>g</i>	3
4	Ⴃ	დ	<i>d</i>	4
5	Ⴄ	ე	<i>e</i>	5
6	Ⴅ	ვ	<i>v</i>	6
7	Ⴆ	ზ	<i>z</i>	7
8	Ⴇ	თ	<i>ey</i>	8
9	Ⴈ	ი	<i>i</i>	9
10	Ⴉ	ო	<i>o</i>	10
11	Ⴊ	კ	<i>k</i>	20
12	Ⴋ	ლ	<i>l</i>	30
13	Ⴌ	მ	<i>m</i>	40
14	Ⴍ	ნ	<i>n</i>	50
15	Ⴎ	რ	<i>r</i>	60
16	Ⴏ	ა	<i>a</i>	70
17	Ⴐ	ბ	<i>b</i>	80
18	Ⴑ	გ	<i>g</i> [<i>zh</i>]	90
19	Ⴒ	დ	<i>d</i>	100
20	Ⴓ	ე	<i>e</i>	200
21	Ⴔ	ვ	<i>v</i>	300
22	Ⴕ	ზ	<i>z</i>	400
23	Ⴖ	თ	<i>t</i>	500
24	Ⴗ	ი	<i>i</i>	600
25	Ⴘ	ო	<i>o</i>	700
26	Ⴙ	კ	<i>k</i>	800
27	Ⴚ	ლ	<i>l</i>	

No.	KHUTSURI (Ecclesiastical Capitals)	MKHEDRULI (Modern Alphabet)	Transliteration	Numerical Value
28	Ⴀ	შ	ś [sh]	900
29	Ⴁ	ჩ	č [ch]	1000
30	Ⴂ	ც	c [ts]	2000
31	Ⴃ	ძ	dz	3000
32	Ⴄ	წ	ç [ds]	4000
33	Ⴅ	ჭ	č [tch]	5000
34	Ⴆ	ხ	h [kh]	6000
35	Ⴇ	ბ	b [bh]	7000
36	Ⴈ	გ	g	8000
37	Ⴉ	დ	d	9000
38	Ⴊ	ე	ho [oy]	10000



THE CAUCASUS

I. INTRODUCTORY

The numismatic history of the Caucasian kingdom of Georgia and its various principalities extends over more than two thousand years and presents a series of the most diverse types, reflecting the political and cultural influences to which the land was from time to time subjected. Colchis, or western Georgia, was renowned from mythical times as a source of precious metals, a fact illustrated by the legend of the Golden Fleece.

Some four centuries before our era, Greek colonies on Georgia's Black Sea coast were issuing their own currency, which circulated freely among the Georgian clans of the hinterland. The influence of Greek and Roman domination can be seen in a number of curious local imitations of the staters of Alexander the Great and Lysimachus, and later of the denarii of the Emperor Augustus.

During the sixth and seventh centuries after Christ, when Transcaucasia was a battleground between the Sasanian and Byzantine empires, eastern Georgia, the Iberia of the Ancients, began to evolve its own coinage. Starting as an adaptation of a familiar Sasanian model, this first Iberian series soon achieved a significant evolution towards a national, Christian iconography. Before long, however, the Arab conquest imposed a uniformity of style reflecting Georgia's subjection to the new might of Islam. On the decay of the Caliphate, the Emirs of Tiflis asserted their new-found autonomy in coinage of a distinctly particularist type.

By the tenth century, the Georgians were rising to full statehood. Close cultural ties with Byzantium resulted in the adoption of styles which, far from being slavish imitations, show strong and individual developments in Christian imagery. Under King David the Builder and Queen T'amar, during the twelfth and early thirteenth centuries, Georgia profited by the weakening of Seljuk power to establish a kingdom extending from the North Caucasus into Anatolia on the one hand, and from the Black Sea into Azerbaijan on the other. In-

creasing intimacy with neighbouring Muslim principalities led to the adoption of a mixed style of coinage, embodying both National-Christian and Islamic elements. This did not, during Georgia's Golden Age, imply political dependence on the Muslim powers. Indeed the Georgian dynasts took pride in their Arabic legends in vaunting their role as Defender of the Christian Faith. Sometimes the Caliph's name was included as a gesture of conciliation to Georgia's many Muslim subjects, as well as to the inhabitants of neighbouring states, among whom economic considerations made it desirable that Georgia's coinage should circulate as widely as possible.

The Mongol domination, one of the most demoralizing periods in Georgia's history, is paradoxically enough one of the most fascinating in the history of her coinage. Two main series may be distinguished: the Hulaguid-Christian dirhems, bearing a cross and often the monogram of the Georgian vassal monarch; and the standard Il-Khanid issues, struck in the towns of Tiflis, Akhaltsikhe and Qarā-Aghāch just as in scores of other mint-towns in the Mongol empire of Persia and the Near East.

The onslaughts of Tamerlane, which occurred just when Georgia was recovering from the Mongol occupation, had a disastrous effect on the coinage. The few examples of Georgian national currency of the fourteenth and fifteenth centuries which have come to light bear witness to a sadly debased standard of quality and workmanship.

The Ottoman and Safavid empires early strove to subjugate Transcaucasia. The conquest of Georgia by Shah 'Abbās early in the seventeenth century and the suzerainty subsequently exercised by the court of Isfahan are commemorated by a long series of standard Safavid issues minted at Tiflis. In 1723 the Turks invaded and held the land for a few years, also leaving numismatic traces of their occupancy. The conqueror Nādir expelled the Turks in his turn, an event likewise recorded in the coinage.

Erekle II (1744-98) brought eastern Georgia half a century of somewhat precarious independence, during which time she had to manoeuvre between Persia and Russia. We alternately find on Erekle's coinage the Russian eagle and elements of wholly Persian affinity, though an individual ensemble is often achieved.

The death in 1800 of Giorgi XII, last king of K'art'lo-Kakhet'i,

resulted in the absorption of the country by Russia. For the first three decades of the century, a mint operated in Tiflis under Imperial authority to produce a distinct regional currency for the new province, the inscriptions being in Georgian characters. After 1834, Georgia employed standard Russian currency.

The collapse of the Empire in 1917 was followed by the emergence of small national states from amidst its component parts. One of these was the Georgian Republic, which maintained its independence under the Presidency of the late Noah Jordania until Soviet armed invasion in 1921 brought the country under Bolshevik rule. This was a period of crisis and inflation, as is shown by the note issue of the period. At present, the standard currency of the Soviet Union circulates in Georgia exclusively. Owing to its bulk and heterogeneous nature, however, the description of Georgia's 20th century currency has been reserved for a separate study.

* * *

The study of the coinage of Georgia has long attracted the attention of numismatists. The illustrious Fraehn did much to clarify the tangled web of the Il-Khanid period in Georgia. In 1844, a Georgian nobleman in the Russian service, Prince Michael Barataev (Barat'ashvili) (1784-1856), published the first attempt at a systematic classification of the Georgian coins then known. Barataev's work met with penetrating, if somewhat harsh criticism by the Academician and historian of Georgia, M.-F. Brosset (1802-1880). For his part, Brosset maintained a correspondence on the subject with the eminent numismatist, General J. de Bartholomaei (1812-1870). This correspondence, together with Bartholomaei's letters to Soret on Oriental coins, are among our most valuable guides to Georgian medieval coinage. Meanwhile, the French savant Victor Langlois (1829-1869) was preparing his two historical and descriptive surveys of the coins of Georgia, which appeared in 1852 and 1860. In spite of some defects of detail, the second of these remains a valuable work of reference, and has yet to be superseded.

After this deployment of scholarly resource, the subject slumbered for half a century, until there appeared in 1910 the first section of E. A. Pakhomov's treatise on the coinage of Georgia, extending to

•

the reign of Queen Rusudan. The second half, which would have comprised the Mongol and subsequent periods, was completed and printed, but prevented by the vicissitudes of war and revolution from being published. This is greatly to be regretted in view of the admirable thoroughness of the first volume. To this day, Pakhomov continues to do most valuable work by classifying and publishing particulars of hoards dug up in Transcaucasia.

In the West, Professor Joseph Karst of Strassburg published in 1938 a concise but serviceable summary of Georgian numismatic history, together with a study of Georgian metrology.

Finally, we must mention the work of the Coin Room of the Georgian State Museum at Tiflis. In the bulletin of that institution have been appearing over the last decade a series of excellent articles by David Kapanadze and T'amar Lomouri, describing new finds and suggesting fresh attributions of known varieties. These articles being written in Georgian, it is to be feared that they will not achieve the notice they deserve in the numismatic world generally. They have been of great service in preparing the following pages.

* * *

A Note on Georgian Chronology

Until the late eighteenth century, none of the coins of Georgia are dated according to the Christian era. Georgian national chronology as employed during the medieval period is based on a Paschal Cycle of 532 years, known as the K'oronikon. The first cycle during which this method of computation was used began in the year 781 A.D. (K'oronikons 1 = 781 A.D.).

This was theoretically the thirteenth cycle. In principle, the cyclic series goes back to the Creation, which the Georgians set at 5604 B.C. The scholiasts who evolved this system of chronology, probably early in the ninth century, were able to compute that in the year 780 A.D., exactly twelve cycles had elapsed (5604 plus 780 equals 6384; 6384 divided by 532 equals 12). Why the year 780 was chosen as a point of departure remains obscure; it may have had some historical connection with the establishment of Bagratid rule in Georgia.

The year of the K'oronikon is normally inscribed on coins and charters in Georgian ecclesiastical majuscule letters ("asomt'avruli"), which can readily be equated with their numerical values. To take an example, the silver dirhem of Queen Rusudan bears the date 𐌕𐌚 equivalent to 450 of the K'oronikon, i.e., 1230 A.D. (780 plus 450 equals 1230). The possibility has to be borne in mind that the date might belong to the next K'oronikon, beginning in 1312 A.D. This would bring one to the year 1762 A.D., which can be ruled out, as in other cases, by historical and stylistic evidence.

In addition, the Hijra era is found on most series from the Arab conquest until the Russian occupation. This may occur either instead of or in conjunction with the year of the Georgian K'oronikon.

II. THE CLASSICAL PERIOD

The monetary series of Georgia begins with the coins of Colchis, that area on the eastern shores of the Black Sea which comprises the present-day Mingrelia, Imeret'i and adjoining territories. As is well known, Greek colonists from Miletus maintained settlements and trading stations there from the seventh century B.C. onwards. The most important of these were Dioscurias, near the present-day Sukhum in Abkhazia, and Phasis, at the mouth of the river of that name, the modern Rion.

Six types of Colchian coin, conveniently termed "Kolkhidki" in the Russian literature, are listed and illustrated in recent articles by the Soviet numismatists A. N. Zograf and D. G. Kapanadze.¹ Three of them are new to science. The ANS has only the best-known and most widely distributed variety of Kolkhidka. Two of the six specimens in the collection are illustrated.

1. Hemidrachm Colchis circa 400 B.C.

Obv. Female head, right, of archaic or archaistic style. Hair falls in three tresses down the back of the neck. Border of dots.

Rev. Bull's head, right, within linear circle.

AR 12 mm. → 1.99 gr.

PLATE I, 1.

1 A. Similar to preceding, but head on obverse with four tresses of hair.

AR 12 mm. ↑ 2.27 gr.

PLATE I, 2.

¹ A. N. Zograf, "Rasprostranenie nakhodok antichnykh monet na Kavkaze," in *Gosudarstvennyy Ermitazh: Trudy Otdela Numizmatiki*, tom I, Leningrad, 1945, pp. 29-85, with plates and map; D. G. Kapanadze, "Zametki po numizmatike drevney Kolkhidy," in *Vestnik Drevney Istorii*, No. 3, 1950, pp. 193-96.

The other four specimens in the ANS collection are as follows: —

- a) 11 mm. → 1.63 gr.
- b) 11 mm. ← 1.84 gr.
- c) 11 mm. ↓ 2.19 gr.
- d) 11 mm. ← 2.29 gr.

Head, *Historia Numorum*, p. 495; Babelon, *Traité*, II, 2, pp. 1533–36; Grose, *McClean Collection*, III, p. 2; Wroth, *B. M. Catalogue of Greek Coins (Pontus, etc.)*, p. 4; Pakhomov, *Monety Gruzii*, Pl. I, Nos. 1–5. Pakhomov also illustrates a variety with the bull's head to left.

Specimens have also been recorded with the Greek letters MO, O, A or Φ beneath the head on the obverse.

Head's view that this type originated about 400 B.C. is followed by the majority of authorities, though Grose inclines to the period 500–470. The Soviet archaeologist V. M. Skudnova recently published a specimen discovered in excavations in the Tauric Chersonese among some pottery of a period not later than the second half of the sixth century.¹ But this does not prove that the coin itself is anything like as early as this.

These little hemidrachms are dug up in scores in Mingrelia, Guria and Imeret'i, and have even been used as shot-gun pellets by local hunters.² They probably continued to be minted over a considerable period of years, perhaps right up to the second century B.C.

Of much greater rarity is a Colchian didrachm, one of the few known specimens of which, formerly in the Jameson Collection, and later in the possession of Dr. Jacob Hirsch of New York, is now in the collection of Dr. E. S. G. Robinson.³ Its present owner has kindly allowed us to examine and describe this highly interesting piece.

2. Didrachm Colchis c. 400 B.C.

Obv. Female head, right, with hair falling in tresses down the back of the neck, within linear circle.

¹ V. M. Skudnova, "Nakhodki kolkhidskikh monet i pifosov v Nimfee," in *Vestnik Drevney Istorii*, No. 2, 1952, pp. 238–42.

² Zograf, "Rasprostranenie nakhodok," p. 35.

³ *Collection R. Jameson*, IV, 1932, p. 62, No. 2543 (Pl. CXXXIV); Hess Sale, Lucerne, April 14, 1954, No. 134.

Rev. Two female heads, facing one another, each in square incuse.

AR (base silver) 21 mm. ↗ 10.40 gr.

PLATE I, 3.

Babelon, *Traité*, II, 2, pp. 1535-36, No. 2966; Zograf, "Rasprostranenie nakhodok," Pl. I, No. 3, and p. 36, note 1 (with refs. to earlier literature); Kapanadze, in *Vestnik Drevney Istorii*, No. 3, 1950, No. 3. Not in Head.

Makalat'ia, a prominent specialist on Georgian folk-lore, makes the interesting suggestion that the long-haired female figure on Colchian coins is to be identified with the Georgian wood goddess Dali, whose cult corresponds to that of Artemis in Greek mythology.¹

The Warren Collection now in the Museum of Fine Arts, Boston, includes another Colchian didrachm, of a type entirely different from the preceding. It was formerly in the Greenwell Collection. In view of the uncommon interest presented by this coin, its description is repeated here by kind courtesy of the Curator of the Boston Museum's classical collection.

3. Didrachm Colchis 500 B.C. or later.

Obv. Crouching (hermaphrodite) lion, to right, with head turned back. Long mane, prominent teats.

Rev. Kneeling human figure, with bull's or ox's head, somewhat resembling a minotaur, in oblong incuse. Collar around neck.

AR 21 mm. ← 7.87 gr.

PLATE I, 4.

Boston Museum, *Brett Catalogue*, No. 1352; W. Greenwell, in *NumChron*, 1893, p. 88; Head, *Historia Numorum*, p. 495; Regling, *Sammlung Warren*, p. 154, No. 973. See also Yakunchikov, *Drevne-grecheskie monety*, Nos. 48-49; Zograf, "Rasprostranenie nakhodok," Pl. I, Nos. 1-2; Kapanadze, in *Vestnik Drevney Istorii*, No. 3, 1950, No. 6.

The enigmatic figures depicted on this coin may one day throw light on the primitive beliefs of the Georgians and Abkhazians, in whose cults they probably have their origin. A parallel may be drawn between this bull-headed human figure and some of the monsters depicted in G. Contenau's *Glyptique Syro-Hittite*.

¹ S. Makalat'ia, "Kolkhuri didrak'ma," in the Tiflis Museum *Moambe*, VII, 1933, p. 202. (This article also in English translation: "Colchian Didrachmas," in *Georgica*, I, Nos. 2-3, London, 1936, pp. 72-77).

Another, and so far inedited variety of this coin in the British Museum collection (ex-Feuardent) shows the lion crouching to left, and the kneeling figure in a somewhat different posture. We intend shortly to publish this specimen in a separate study.

To round off the numismatic history of Colchis, we add here particulars of the three new types of Colchian silver coins recently published by Soviet scholars. Illustrations of them will be found on the plate facing page 194 of D. G. Kapanadze's article in the journal *Vestnik Drevney Istorii*, No. 3, 1950, which is available in the ANS and other scholarly libraries.

- (a) Tetradrachm (Kapanadze, No. 1)
Obv. Lion's head, left; mouth open, showing fangs and tongue.
Rev. Winged Pegasus, right, in square incuse.
Æ 22-23 mm. 13.80 gr.
[Unique. State Museum of Georgia, Tiflis.]
- (b) Drachm (Kapanadze, No. 4)
Obv. Lion's head, facing; bristling mane.
Rev. Bull's head, right, as in Nos. 1 and 1A of the present monograph, but in square incuse.
Æ 18 mm. 5.52 gr.
[Unique. K'ut'ais Museum, Georgia.]
- (c) Hemidrachm (Kapanadze, No. 2)
Obv. Lion's head, right; mouth open, showing fangs; long mane.
Rev. Lioness's head, right, in square incuse.
Æ 15 mm. 2.21-2.6 gr.
[3 specimens. State Museum of Georgia, Tiflis.]

In addition to these Greek influences from the west, many of the Georgian clans were tributaries of the Persian Achaemenid empire. After its collapse, Iranian overlordship was replaced by that of Alexander of Macedon. Barbarous local imitations of the staters of Alexander and of Lysimachus circulated in Transcaucasia, and are found in Abkhazia, Atchara and Imeret'i in Western Georgia, as well as in K'art'lo-Kakhet'i to the east, the Iberia of the ancients.¹

¹ A. N. Zograf, "Antichnye zoloty monety Kavkaza," in *Izvestiya Gos. Akademii Istorii Material'noy Kul'tury*, fasc. 110, Moscow-Leningrad, 1935,

While Georgian imitations of the staters of Lysimachus reach in their latest stage an extreme degree of picturesque distortion, those of the third to second centuries are quite close to their prototype. Two examples are known on which the name of Lysimachus has been, as it were, cut in half, leaving only the final portion: AKOU (or AKHOU). Kapanadze was at first disposed to regard this as the name of a hitherto unknown King of Colchis, but L. P. Kharko made it clear beyond reasonable doubt that it is but the product of a local die-engraver's negligence or whim.¹

The ANS collection has two imitations of the Alexander stater which, though of uncertain provenance, closely resemble the Georgian type. They belong to a late stage of degradation. Their attribution to Georgia is strengthened by their high-rimmed hammered edges, characteristic of other specimens of undisputed Caucasian provenance. They are similar to a couple received from Colchis via Erzerum by Prokesch-Osten in 1859.²

4. Obv. Head of Athena, right, grotesquely distorted. In field, to left, two pellets; to right, four pellets.

Rev. Degradation of winged Nike. In field, above, one pellet; below, one pellet; to left, five pellets; to right, three pellets.

N 16 mm. ↗ 2.60 gr.

PLATE I, 5.

Kapanadze, in *Vestnik Drevney Istorii*, No. 3, 1949, p. 158, Pl. I, No. 2.

4A. Obv. Head of Athena, right, distorted even further than in preceding example. To left, one pellet; to right, four pellets.

Rev. Degradation of winged Nike. Above, left, two pellets; right, four pellets.

N 18 mm. ↑ 3.21 gr.

PLATE I, 6.

Ibid., No. 3.

pp. 178–92; D. G. Kapanadze, "O drevneyshikh zolotykh monetakh Gruzii," in *Vestnik Drevney Istorii*, No. 3, 1949, pp. 156–69; A. N. Zograf, *Antichnye Monety*, Moscow, 1951, p. 102, Pl. XII, Nos. 14–18.

¹ D. G. Kapanadze, "Novye materialy k izucheniyu staterov tsarya AKI," in *Vestnik Drevney Istorii*, No. 1, 1948, and "O dostovernosti imeni, vybitogo na statere Basilevsa Aki," *ibid.*, No. 1, 1949; L. P. Kharko, "Sushchestvoval li tsar' 'Ακης?," *ibid.*, No. 2, 1948.

² Baron Prokesch-Osten, "Description de quelques médailles grecques," in *Revue Numismatique*, 1860, p. 274, Pl. XII, Nos. 10–11.

The ascription of certain groups of Alexander and Lysimachus imitations to Georgia does not, of course, affect the long-established attribution of other groups to the Danubian Celts and other European tribes. This fact is overlooked by Kapanadze when criticizing Forrer and Paulsen for "ignoring" such coins' possible Georgian provenance.¹

At the time of Mithradates Eupator, Colchis fell under the sway of Pontus. From this period dates an interesting bronze issue of the Greek colony of Dioscurias on the Black Sea coast of Abkhazia, two specimens of which are in the ANS collection.

5. Obv. Caps of the Dioscuri, surmounted by six- or eight-pointed stars.

Rev.

Δ Ι	Ο Σ	
Κ Ο Υ	Ρ Ι Α	Thyrsos
Δ	Ο Σ	

Æ 16 mm. 3.83–5.47 gr.

PLATE I, 7, 8.

Head, *Historia Numorum*, p. 496; E. H. Minns, *Scythians and Greeks*, Cambridge, 1913, p. 632, Pl. IX, No. 28; *B. M. Catalogue of Greek Coins (Pontus etc.)*, Pl. I, Nos. 11–12.

The invasion of Georgia by Pompey in 65 B.C. brought the country firmly into the Roman orbit. Pompey appointed Aristarchus to be dynast of Colchis (c. 63–47 B.C.). A silver coin of Aristarchus in the Leningrad Hermitage shows on the obverse the head of Helios (?), and on the reverse, a seated female figure.² The occupation of Georgia by the Roman legions further resulted in local imitations of denarii of the Emperor Augustus.³

¹ *Vestnik Drevney Istorii*, No. 3, 1949, p. 156.

² Head, *Historia Numorum*, p. 496; O. Retovsky, "Drakhma Aristarkha Kolkhidskogo iz sobraniya Imp. Ermitazha," in *Trudy Moskovskogo Numizmaticheskogo Obshchestva*, III, 1905, pp. 1–5.

³ J. Bartholomaei, *Lettres Numismatiques et Archéologiques relatives à la Transcaucasie*, St. Petersburg, 1859, p. 25; Pakhomov, *Monety Gruzii*, Pl. I, No. 7; Zograf, "Rasprostranenie nakhodok," Pl. II, Nos. 2–6.

III. SASANIAN AND ARAB DOMINATION

The evangelization of Georgia by St. Nino at the time of Constantine the Great profoundly altered the course of the country's political and cultural evolution. Georgia became an outpost of Christendom in the East, in spite of repeated efforts by the Sasanians to bring the country back into the Iranian Mazdeist sphere.

This conflict is exemplified in the coinage of the sixth and seventh century princes of Iberia, Guaram I and Stephen I and II. The various types are all derivations from the drachm of the Sasanian monarch Hormizd IV (A.D. 579-90). They show a steadily increasing tendency towards independence, beginning with the addition to the obverse design of the Georgian prince's monogram, and ending with the substitution of the Christian cross for the sacred flame portrayed upon the fire-altar on the reverse.¹

Two Sasanian-type pieces in the ANS collection which had been taken for Georgian imitations fail on examination to show these characteristic traits. They apparently belong in fact to the Central Asian category.²

This chapter in Georgian numismatic history was brought to an abrupt end by the capture of Tiflis by the Arabs about the year 655 A.D. The Arab hegemony over Eastern Georgia is marked by a series of dirhems of standard type struck at Tiflis in the name of the Caliphs, beginning with an Umayyad dirhem of A. H. 85.

Of the set of examples described and illustrated by Pakhomov,³ the single specimen in the ANS collection is a dirhem of the 'Abbāsid

¹ Bartholomaei, *Lettres Numismatiques*; Pakhomov, *Monety Gruzii*, pp. 15-36, Pls. I-II; Prince C. Toumanoff, "Iberia on the eve of Bagratid rule, Excursus C: Coins of the Princes of Iberia," in *Le Muséon*, LXV, Louvain, 1952.

² One of these two is apparently the identical specimen described in Schulman's catalogue of March 30, 1914, No. 362. Incidentally, there can be little doubt that the coin described as "Georgian"-Sasanian in the Grantley sale catalogue (Schulman, Amsterdam, 1921), No. 1605, is really Central Asian. The second of these two doubtful items in the ANS collection resembles the variety described in the White King catalogue (Schulman, Amsterdam, 1904), No. 855.

³ *Monety Gruzii*, pp. 36-48, Pl. II, Nos. 23-29.

Caliph al-Muktafi (A.H. 289-95), struck in the year 294 of the Islamic era.

6. Dirhem Tiflis A.H. 294/906-7 A.D.

Obv.	لا اله الا	There is no god but
	الله وحده	Allāh alone.
	لا شريك له	He has no associate.

Inner margin: بسم الله ضرب هذا الدرهم بتفليس سنة اربع وتسعين ومائتين

In the name of Allāh, this dirhem was struck at Tiflis in the year 294.

Outer margin: Qur'ān, XXX, 3-4.

Rev.	الله	To Allāh
	محمد	Muḥammad
	رسول	Is the Messenger
	الله	Of Allāh
	المكتفى بالله	al-Muktafi bi'llāh.

Margin: Qur'ān, IX, 33.

AR 26 mm. 2.93 gr.

PLATE I, 9.

Tiesenhhausen, *Monety Vostochnogo Khalifata*, No. 2197; Pakhomov, *Monety Gruzii*, pp. 42-43, Pl. II, No. 24.

In the year 912, mention is made of a lieutenant of the Caliph at Tiflis by the name of Ja'far b. 'Alī. Following the disintegration of the 'Abbāsid caliphate towards the middle of the tenth century, control over the city and district of Tiflis remained vested for nearly two centuries in this Ja'far's line.

These Ja'farid emirs now began to strike a series of silver dirhems in their own name. So far, there have been recorded coins of Maṣṣūr

b. Ja'far struck in 342/953-4 and 343/954-5, during the caliphate of al-Muṭi' li'llāh; also of this emir's son Ja'far b. Maṣṣūr, dated 364/974-5, 366/976-7 and 370/980-1, in the caliphate of al-Ṭā'i' li'llāh.¹

This list has recently been amplified by the discovery near Tiflis of a dirhem minted in 386/996-7 by the emir of Tiflis, 'Alī b. Ja'far, son and successor of Ja'far b. Maṣṣūr. This coin, first published by the Georgian numismatist, D. Kapanadze,² does not differ essentially from those of this ruler's father and grandfather. It is of the usual 'Abbāsīd type, with the conventional three-line declaration of faith on the obverse, together with the mint-date formula and an outer margin containing Qur'ān XXX, 3-4. On the reverse as follows: —

محمد	Muḥammad
رسول الله	Is the Messenger of Allāh
الطابع لله	al-Ṭā'i' li'llāh
الامير المظفر	al-Amīr al-Muẓaffar
علي بن جعفر	'Alī b. Ja'far.

And the usual marginal legend.

Kapanadze notes with some surprise that this dirhem, dated A.H. 386, is struck in the name of the Caliph al-Ṭā'i', who had been deposed five years earlier. This apparent inconsistency is due to the fact that the Baghdad coup d'état of A.H. 381 aroused widespread opposition and a determined legitimist movement in favour of the deposed Caliph. For several years a number of outlying regions of Islam, notably in Persia, refused to recognize the new Caliph, al-Qādir.³ It is interesting to note that the Emir of Tiflis was among those who stood out against the new order.

¹ Pakhomov, *Monety Gruzii*, pp. 48-52.

² D. Kapanadze, "X saukunis T'biluri drama Ali ben Jap'arisa," in *Sak'art'velos sakhelmdsip'o muzeumis moambe*, XIIB, 1944, 183-90.

³ George C. Miles, *Numismatic History of Rayy*, New York, 1938, pp. 173-76. The deposed al-Ṭā'i' did not die until A.H. 393.

A sequel to this story is supplied by a hitherto unchronicled item in the ANS collection. The description of this piece, which formerly belonged to General Starosselsky, is as follows: —

7. Dirhem Tiflis A.H. **4.

Obv.	لا اله الا	There is no god but
	الله وحده	Allāh alone.
.....
	لا شريك له	He has no associate.
	القادر بالله	al-Qādir bi'Hāh.

Inner margin: هذا الدرهم (sic) بتفليس سنة اربع (؟)

.....this dirhem at Tiflis, year **4..... [A.H. 394, 404 or 414]

Outer margin: Qur'ān XXX, 3-4.

Rev.	الله	To Allāh
	محمد	Muḥammad
	رسول الله الامير	Is the Messenger of Allāh; the Am[īr]
.....
	المظفر ابو.....	Victorious, Abū.....
	علي بن جعفر	‘Alī b. Ja‘[far].

Margin: Traces of Qur'ān IX, 33.

R 23 mm. 4.12 gr.

PLATE I, 10.

This is a coin of thick, somewhat crude fabric. Its individual style of design and layout reflects a distinct trend towards political independence. Note the *kunyah*, partly effaced on this specimen, not

found on the same Emir's standard-type dirhem of A.H. 386. An unusual feature is the horizontal line of thick dots running across the centre of both obverse and reverse.

The exact date of the coin cannot be determined, only the last figure of the formula, namely a four, being decipherable. By the time it was minted, 'Alī b. Ja'far had recognized al-Qādir (A.H. 381-422) as Caliph. Since he was still maintaining allegiance to al-Ṭā'ī in 386, we have the possibilities A.H. 394, 404 or 414. Beyond this, one cannot for the moment be more precise.

With regard to the historical background, it is recorded that this 'Alī b. Ja'far pillaged the treasure of the Cathedral of the Living Pillar at Mtskheta. His son, Ja'far, took part in an expedition against Ganja in 421/1030 and died about 1046. Ja'far's two sons, Manṣūr and Abū'l Hayjā, quarrelled in their bid for power, and were expelled in 1062 by the Tiflis citizens. They were arrested by the Sultan Alp Arslān on his invasion of Georgia in 1068.¹

By combining the historical and numismatic evidence, we arrive at the following table of Ja'farid Emirs of the period, with their approximate dates:

Ja'far b. 'Alī	A.H. 299	A.D. 912
Manṣūr b. Ja'far	342-43	953-55
Ja'far b. Manṣūr	364-70	974-81
'Alī b. Ja'far	386-94	996-1003
Ja'far b. 'Alī II	421-38	1030-46
Manṣūr b. Ja'far II } Abū'l-Hayjā }	438-61	1046-68

A postscript to this account of the Emirs of Tiflis is provided by the twelfth century Arab historian Ibn al-Azraq. Describing the situation at Tiflis in A.H. 515/1121-22, this writer says: "For forty years the latter had been in the hands of the population. Its possessors had been a family of local people called Banū-Ja'far for about two hundred years, after which the senior members among them became ruined and their affairs got into confusion, and the administration of Tiflis reverted to the population, of whom every month one administered

¹ V. Minorsky, article "Tiflis" in the *Encyclopaedia of Islām*; V. Minorsky, *Studies in Caucasian History*, London, 1953, pp. 19, 23, 46.

its affairs. Thus they carried on for forty years. Malik Dāvūd, (who) was the king of the Gurj and the Abkhāz [i.e. King David the Builder, 1089–1125], brought the town to great straits and it got into confusion.”

Ibn al-Azraq goes on to tell of the Georgian king David's siege of Tiflis in 1122: “Then he breached the walls from the western side and entered the town by the sword. He burnt it and utterly destroyed it, but after three days granted *amān* to its people and soothed their hearts and left them alone, in all goodness. For that year he abrogated their taxes, services, payments by instalments and the *kharāj*. He guaranteed to the Muslims everything they wished, according to the pact which is valid even today. In it (it is stipulated) that pigs should not be brought over to the Muslim side nor to the town, and that they should not be slaughtered there or in the market. He struck dirhams for them, on one side of which stood the names of the sultan and the caliph, and on the other side stood the names of God and the Prophet, on him be peace, (whereas) the king's own name stood on a side of the dirham. . . . He assessed a Georgian at a rate of 5 dinars per annum, a Jew at 4 dinars, and a Muslim at 3 dinars. He was extremely kind to the Muslims . . .

“I witnessed all these privileges when I entered Tiflis in the year 548/1153. And I saw how the king of the Abkhāz, Dimitri, in whose service I was, arrived in Tiflis and sojourned there some days. The same Friday he came to the cathedral mosque and sat on a platform opposite the preacher and he remained at his place while the preacher preached and the people prayed and he listened to the *khuṭba*, all of it. Then he went out and granted for the mosque 200 gold dinars.”¹

This is one of the instances where literary and numismatic data coincide and supplement one another. Copper coins fitting Ibn al-Azraq's description, with the Georgian king's name or monogram on the obverse, and the Caliph's name on the reverse, were indeed struck in large numbers under King David's successor, Dimitri (1125–55). We now know that the presence of the Caliph's name was not a sign of political dependence, but a conciliatory gesture to the Muslim inhabitants of the Georgian capital.

¹ V. Minorsky, “Caucasica in the History of Mayyāfāriqīn,” in *Bulletin of the School of Oriental and African Studies*, XIII, part 1, London, 1949, pp. 31–34.

² Lang

IV. THE GOLDEN AGE OF THE BAGRATIDS

Bagrat III (975-1014)

While the Ja'farid Emirs held sway in Tiflis, the energetic scions of the Bagratid house had risen to power in the south-western marchlands of Tao-Klarjet'i.¹ As a result of their skilful diplomacy and warlike prowess, Bagrat III, King of K'art'li and Kuropalates, found himself from 1008 the ruler of an extensive unified state, including the old kingdom of Abkhazia and parts of south-western Georgia. His authority did not extend to the city of Tiflis itself, which remained the metropolis of the Muslims, though the Georgian dynasts controlled most of the adjoining territory.²

This situation is reflected in the coinage of Bagrat III. A unique silver coin of his reign in the Hermitage collection, while for the most part a slavish imitation of an obsolete type of early 'Abbāsid dirhem, bears on the reverse a legend in Georgian ecclesiastical majuscules (asomt'avruli), reading: O Christ, exalt Bagrat, king of the Abkhazians. This is the only specimen of Bagrat III's coinage to bear a Georgian legend.³

There is however a relatively common transitional prototype, on which no Georgian legend yet appears. This prototype is simply a slavish Georgian imitation of the 'Abbāsid dirhem, which had become scarce in Transcaucasia through the drain of silver currency out of the Near East into Russia and Scandinavia. Three specimens are in the ANS collection.

8. Dirhem Tiflis (?) N.D.

Obv. Crudely inscribed.

¹ On the rare Byzantine-type coins of David the Great of Tao, see Pakhomov, pp. 55-57.

² W. E. D. Allen, *A History of the Georgian People*, London, 1932, pp. 84-85.

³ Langlois, in *Revue de la Numismatique Belge*, 1864, pp. 202-5; Pakhomov, *Monety Gruzii*, pp. 58-60, Pl. III, No. 37.

لا اله الا	There is no god but
(sic) اله ادم	Allāh alone.
(sic) لاشك له	He has no associate.

Margin: Illiterate imitation of Arabic pious legend.

Double border of dots.

Rev. Crudely inscribed.

محمد	Muḥammad
(sic) رسو	Is the Messenger
الله	Of Allāh

Beneath, on one specimen only:

(sic) تيفيس	Tif[1]is
-------------	----------

Margin, between border of dots and outer linear border: Illiterate imitation of Arabic pious legend.

R 22–23 mm. 1.57–1.80 gr.

PLATE I, II, 12.

Pakhomov, *Monety Gruzii*, p. 60, Pl. III, Nos. 38–39.

The specimen bearing the distorted mint name Tiflis beneath the reverse inscription appears to be unique. So far as can be ascertained, Bagrat III was never in control of that capital city. On the other hand, if these imitations had been struck by the Ja'farid Emirs, one would have expected a higher degree of literacy in the Arabic inscriptions. However this may be, there is no doubt that these coins were current in Georgia under Bagrat III, to whose reign they may most conveniently be attributed.

* * *

Of Bagrat IV (1027–72) we have silver coins of Byzantine affinity, showing on the obverse the Holy Virgin, and having on the reverse a pious formula embodying the king's Byzantine titles of Nobilissimus

.*

and Sebastos. His son and successor Giorgi II (1072–89) retained this style of design, inscribing on the reverse his imperial title of Caesar.

During these two reigns, Georgia suffered greatly from the depredations of the Seljuk Turks, who occupied the Armenian capital of Ani in 1064, raided Eastern Georgia in 1068, and defeated the Byzantine army at Manazkert in 1071, capturing the Emperor Romanus Diogenes.

Under David the Builder (1089–1125), important victories were won over the Turks, whose military potential was impaired by the campaigns of the Crusaders in the Levant. The Seljuks were rapidly ejected from most of Georgia, and Tiflis was re-taken from the Muslims in 1122.

David the Builder's coins are extremely rare: the few pieces as yet known retain the image of the Holy Virgin on the obverse, and show on the reverse a cross surrounded by the king's name and titles.

Dimitri I (1125–55) minted copper only. Several patterns of his coinage are known, abandoning Byzantine forms in favour of reversion to a hybrid Georgian-Muslim type. The obverse of one variety has the king's initial "D" in Georgian ecclesiastical majuscule, together with his title "Sword of the Messiah" in Arabic, while the reverse, from motives of political expediency, bears the name of the Caliph of Baghdad.¹

David V's short reign, possibly cut short by assassination, has apparently left us no coins.

Giorgi III (1156–1184)

Giorgi was a monarch of ferocious and determined disposition. He came to the throne after a sanguinary family feud, excluding and suppressing the legitimate heir, Demna, grandson of King Dimitri I.

In the absence of any example of Giorgi's coinage in the ANS collection, the opportunity has been taken to include a copper coin of his reign from the collection of Mr. William L. Clark.

¹ For the monetary series of these reigns, which are not represented in the ANS collection, see Pakhomov, *Monety Gruzii*, pp. 61–86. Karst's p. 48, No. 10, attributed to David the Builder, really belongs to the two Davids, Narin and Ulugh (c. 1261). Pakhomov's is the only work to do justice to this rather obscure period of Georgia's numismatic history.

9. Copper [Tiflis] A.D. 1174.

Obv. King seated cross-legged, facing. On his head, a crown with hanging tassels, surmounted by a cross. The king is bearded and attired in a close-fitting tunic, loose trousers after the Persian fashion, and boots. His left hand rests on his thigh, on his right hand uplifted sits a falcon. To the right of the king's head (as viewed by the spectator), in Georgian mkhedruli characters: გო GiorgI.

Below, right, a monogram formed from the Georgian ecclesiastical characters ჳ, ჳ (GiorgI).

Under monogram, traces of Georgian ecclesiastical characters: ჳ, ჳ K'oRoniKons.

To left, between falcon and king's head, traces of ecclesiastical characters ჳ, ჳ, representing the date 394 of the Paschal Cycle, or 1174 A.D.

Rev.	ملك الملوك	King of Kings
	გიორგი ბნ დემტრი	Giorgi, son of Dimitri,
	حسام المسيح	Sword of the Messiah.

Border of dots.

Æ 22 mm. 4.96 gr.

PLATE II, I.

M. Barataev, *Numismaticheskie fakty Gruzinskogo tsarstva*, St. Petersburg, 1844, section III, Pl. I, pp. 6-12; V. Langlois, *Essai de Classification des Suites Monétaires de la Géorgie*, Paris, 1860, p. 55, Pl. IV, No. 1; Pakhomov, *Monety Gruzii*, p. 90, Pls. VI, Nos. 107-8 and VII, No. 109.

It is noteworthy that from Dimitri I (1125-55) until the reign of Rusudan, copper only was minted in Georgia. This was a result of the silver famine affecting the entire Near East at this period. "Shortly before the year 1000 A.D., a remarkable, omnipresent shortage of silver affected the Mahometan world. Within a brief space of time it practically ceased to be coined at all in the majority of the Islamic states and fractional currency in base metals took its place alongside of the gold dinars, which continued to circulate."¹ In Georgia, many of these fractional copper coins still bore on them the denomination "vetskhli," which properly signifies a silver piece.

¹ Robert P. Blake, "The Circulation of silver in the Moslem East down to the Mongol epoch," in *Harvard Journal of Asiatic Studies*, II, 1937, p. 291.

Among the complex causes for this phenomenon features the expansion of the Russian and Scandinavian export trade to the Islamic world, resulting in the draining off of silver currency to the North Western Slavonic and Baltic lands. The effect of this became acute when the Arabs lost control of the Transcaucasian silver mines late in the ninth century, and the local rulers showed themselves deficient in mining and refining technique. Furthermore, the tottering Sāmānid dynasty lost control about the year 975 of the important Zarafshān silver mines in Turkestan, which had supplied the whole Muslim East. The upheavals incident on the disintegration of the 'Abbāsīd caliphate, together with the ruin of the Bulgar kingdom on the Volga, interrupted trade relations between Russia and the Near East. Accumulations of silver by Russian exporters were hoarded, and never returned to their source. The Seljuk invasions of the eleventh century ended by driving a wedge between the Slavonic and Arab worlds. Georgia could not remain unaffected by these developments, though the minting of silver there continued until the reign of David the Builder (1089-1125).

This famine was brought to an end during the thirteenth century. The Mongol conquest of China in 1213 drew off large quantities of silver to the West, where it was seized upon by the trading public and put into circulation.¹ In Georgia, the restoration of the silver supply was to enable Queen Rusudan to reform the coinage by the issue of her famous "Botinats" of the year 1230.

Queen T'amar (1184-1213)

The name of T'amar is endowed with legendary splendor in the annals of Georgia. The military might of the Georgian kingdom made itself felt throughout Persia and Eastern Anatolia, while the national literature reached its apogee in the heroic romance of Shot'a Rustaveli.

The coinage of T'amar's reign is disappointing, and fails to reflect the glory of the age. Surprisingly enough, no attempt was made to strike gold. Owing to the silver famine, copper fractional currency provides the only monetary series of the reign. Even here, the work-


¹ Blake, "The Circulation of silver," p. 328.

manship leaves much to be desired. The irregular coppers are little more than rudely fashioned lumps of metal of various sizes, stamped haphazardly with a die often too big or too small for the planchet.

T'amar's father, Giorgi III, had already proclaimed her as co-regent some six years before his death. T'amar's first husband, a dissolute scion of the Bogolyubskoy family of Suzdal, was also called Giorgi (Yury). There is therefore some difficulty in attributing the earliest type of T'amar's coinage, which is inscribed with the names of both Giorgi and T'amar, but without date. Pakhomov inclines to the view that this Giorgi is the Bogolyubskoy Prince-Consort while Kapanadze cogently argues for the attribution to Giorgi III reigning with his daughter.¹ As it seems quite inadmissible that the title "King of Kings" borne by the Giorgi on these coins could apply to a mere Prince-Consort, Kapanadze's view is to be preferred.

The first type of the coinage of T'amar to be represented in the ANS collection consists of the irregular coppers issued in the Queen's name alone. The legends, fragmentary on each example, have been reconstructed from all four specimens and from the literature.

10. Irregular Copper, cast planchet. A.D. 1187 and 1210.

Obv. In centre, the monogram: 

representing the letters თამარ, T'amar, in the Georgian mkhedruli or knightly hand. The monogram is surrounded by a wreath of rosettes.

Margin: In Georgian ecclesiastical majuscules:

+სეზბოე ნთრ იტერ სთრ
 ზგე ზსი ზბს ზბჟს ზბ

abbreviated for "Sakhelit'a ghvt'isait'a ik'na tcheday vetskhlisi amis K'oronikonsa 407": In the name of God, was made the striking of this silver piece in the K'oronikon 407, i.e. A.D. 1187.

In another variety, the last two letters read ჳ ზ, i. e. 430 of the K'oronikon, or A.D. 1210.

Border of dots.

¹ Pakhomov, *Monety Gruzii*, pp. 97-99; D. Kapanadze, "Giorgisa da T'amaris sakhelit' motchrili p'ulis shesakheb," in *Sak'art'velos sakhelmdsip'o muzeumis moambe*, XIIB, 1944, pp. 191-96; Kapanadze, "O mednoy monete s imenami Georgiya i Tamary," in *Kratkie soobshcheniya Instituta Istorii Material'noy Kul'tury*, fasc. XXIV, 1949.

Rev.	الملكة المعظمة	The great Queen
	جلال الدنيا والدين	Glory of the World and Faith
	تامار بنت گيورگی	Tamar daughter of Giorgi
	ظهير المسيح	Champion of the Messiah
	اغز الله انصار	May God increase [her] victories. ¹

Margin: ضاعف الله جلالها ومدّ ظلالها وايد اقبالها

May God increase her glory and lengthen her shadow and strengthen her beneficence!

Border of dots.

- Æ a) 16 mm. 5.00 gr.
 b) 11 × 18 mm. 2.48 gr. Counterstamp.
 c) 20 × 30 mm. 11.48 gr. Counterstamp.
 d) 16 × 40 mm. 10.31 gr. Counterstamp.

Barataev, *Num. fakty*, section III, Pls. II–III; Langlois, *Essai*, p. 60, Pl. IV, Nos. 5–9; Pakhomov, *Monety Gruzii*, pp. 99–100, Pls. VII, Nos. 118–27 and VIII, Nos. 128, 131.

PLATE II, 2 (Obv. only), 3–5.

The irregularity and defective workmanship of these coins, one of the commonest of the Georgian series, may reflect hasty improvisation entailed in providing large quantities of currency of low denomination for the extensive territories temporarily annexed during T'amar's reign. The rude fabric is similar to that of some of the Shīrvānshāhs' and Kings of Qarabāgh's coppers of the late twelfth and early thirteenth centuries. It may be that some of these irregular coppers were struck under Georgian supervision in the mints of these

¹ None of the specimens examined or illustrated in the literature has the feminine possessive termination *hā-alif*. Pakhomov's Nos. 121 and 125 exhibit what seems to be the masculine termination *hā*, which makes the last line read: "May God increase his victories." This may either be a grammatical oversight, or refer back to the preceding line, where the Queen is given the masculine title of Champion. This confusion is hardly surprising, especially when it is remembered that T'amar bore the Georgian title of Mep'e, which means King.

localities, which were under more or less direct Georgian suzerainty at this period.¹ This would explain the counterstamps found on the vast majority of coins of this type, which in this case could have been applied by the central authority to validate them for general circulation.

The only dates that occur on coins of this issue are 407 and 430 of the Paschal cycle (A.D. 1187 and 1210). There is however no doubt that they were struck intermittently for a number of years. Very often the date falls outside the flan. Of the four specimens in the ANS collection, only one, example (d), can be dated, the letter L, value 30, followed by a cross, being preserved in the obverse margin, giving the year 430, or A.D. 1210.

Three of our four specimens are counterstamped.² Examples (b) and (c) have the Georgian ecclesiastical majuscule letter D, with a dot in the centre, in an oblong incuse, thus: —



This counterstamp is peculiar to T'amar's irregular coppers.³

Example (c) has a second counterstamp (Pakhomov's figure 7), which can be identified as part of the cipher of Queen Rusudan, and was doubtless applied during her reign (1223-45): —



Example (d) has a different counterstamp, also representing part of Queen Rusudan's cypher, this time within an ornamental border:⁴



¹ The first irregular coppers were struck under Dimitri I (1125-55), who employed some mint-masters from Shirvān (A. Bykov, "Gruzinskie monety XII-XIII vv.," in *Pamyatniki epokhi Rustaveli*, Leningrad, 1938, p. 80.)

² See Pakhomov's comprehensive study of XII-XIII century Georgian counterstamps in *Monety Gruzii*, chapter V.

³ Pakhomov, p. 124, figure 2.

⁴ Pakhomov, p. 124, figure 6. In addition to the ANS examples, four specimens of this type, from a hoard, have been shown to us by a New York collector. They have semi-regular round planchets, 14-16 mm. in diameter, and weigh between 1.70 and 4.20 grammes, two having the "D with dot" and two the Rusudan cypher counterstamp. They may represent an attempt to standardize the issue, and have been intended to pass as quarter dirhems.

After her divorce from the reprobate Giorgi Bogolyubskoy, T'amar married in 1193 David Soslan, an Ossetian prince with Bagratid blood in his veins. She bore him the future King Giorgi Lasha and the future Queen Rusudan. David Soslan was a constant source of aid and support in T'amar's military and political enterprises until his death in 1208. An important set of coppers, this time of regular planchet, were struck in their joint names.

11. Regular copper. A.D. 1200.

Obv. In centre, a symbol resembling a military standard or a crossbow, upright. To left and right, $\overline{\text{D}}\overline{\text{D}}$ — $\overline{\text{D}}\overline{\text{D}}$ for T'amar – Davit'. In the corners, the Georgian ecclesiastical majuscules $\text{K}^{\text{K.Vi.K}}$, i.e., 420 of the Paschal cycle, or 1200 A.D.

Border of linked dots.

Rev.	ملكة الملكات	Queen of Queens
	جلال الدنيا والدين	Glory of the World and Faith
	تامار ابنة كيوركى	Tamar daughter of Giorgi
	ظهير المسيح	Champion of the Messiah.

Border of linked dots.

Æ	a) 26 mm.	5.41 gr.	Counterstamp.
	b) 27 mm.	7.80 gr.	2 Counterstamps.
	c) 28 mm.	9.21 gr.	Counterstamp.

Barataev, *Num. fakty*, section III, Pl. III; Langlois, *Essai*, pp. 65–66, Pl. V, Nos. 1–3; Pakhomov, *Monety Gruzii*, pp. 103–4, Pl. VIII, Nos. 132–35. There is also a variety without the Georgian date formula.

PLATE II, 6–8.

Examples (a) and (b) have a counterstamp made up of the Georgian ecclesiastical majuscule D, together with a symbol resembling an Arabic *sīn* (Pakhomov's figure 3), thus: $\overline{\text{D}}\overline{\text{D}}$

The counterstamp on example (c) takes the following form (Pakhomov's figure 4): $\overline{\text{D}}\overline{\text{D}}$

Example (b) has this counterstamp on the obverse, in addition to having the previous one on the reverse.

It is worth noting that these counterstamps are never found on T'amar's irregular coppers; nor do those on the irregular series occur on the regular type.

Giorgi Lasha (1213-23)

The coins of this monarch are not represented in the ANS collection. They are all copper and, as under T'amar, belong to both regular and irregular type.

Giorgi Lasha's irregular coppers bear the date 1210 (430 of the K'oronikon), showing that his mother transferred a large part of the royal authority to Giorgi about this time. The obverse resembles that of T'amar's irregular issue, except that the centre bears the inscription "GI DZE T'MRSI", abbreviated for "Giorgi, son of T'amar," in ecclesiastical majuscules. The reverse inscription consists of Giorgi's name and titles in Arabic. There is an example of this type in the Chase National Bank Museum of Moneys of the World in New York, with a very clear impression of Queen Rusudan's counterstamp.¹

The regular coppers of Giorgi Lasha have on their obverse an inscription which has not so far been satisfactorily deciphered. The concluding portion of it, which reads "JAVKhT'OIA", is usually expanded as "JAVAKhT' UP'LISA," or Lord of the men of Java-khet'i, a region of South-Western Georgia.² But there is no historical evidence that Giorgi Lasha had any special connection with this relatively minor section of his kingdom. It would seem more logical to seek the explanation of this enigma in the shape of some religious formula, bearing in mind that the letter J in Old Georgian inscriptions regularly stands for "Jvari," the Christian cross.

¹ Kindly shown to me by the Curator, Mr. Vernon L. Brown. Unfortunately, this specimen proved as a whole to be too much rubbed for reproduction. See full description in Pakhomov, *Monety Gruzii*, pp. 106-9.

² Pakhomov, *Monety Gruzii*, pp. 109-10.

Queen Rusudan (1223-45)

The reign of T'amar's daughter Rusudan was marked by a series of catastrophes, ending in the complete subjugation of eastern Georgia by the Mongols.

Expelled from his Central Asian dominions by the advancing Mongols, the Shah of Khwārazm Jalāl al-Dīn Menkūberti occupied most of Persia and in 1225 inflicted a signal defeat on the Georgian army at Garni. In the following year he took Tiflis and captured the royal treasury. The city remained in Khwārazmian hands until 1230. Jalāl al-Dīn was overthrown by the Mongols, and in 1231 assassinated by a Kurd.¹

Jalāl al-Dīn celebrated his conquest of Georgia by overstriking the large quantities of Georgian irregular coppers which fell into his hands.

12. Irregular coppers, overstruck. A.H. 623/1226 A.D.

Obv. السلطان The Sultān

المعظم Supreme.

Margin: ضرب هذا الدرهم بتاريخ ثلث وعشرين وستماية

This dirhem was struck in the year 623.
Linear border.

Rev. جلال الدنيا Jalāl al-Dunyā

والدين wa'l-Dīn.

Margin: ضاعف الله جلاله ومدّ ظلاله وايد اقباله

May God increase his glory and lengthen his shadow and strengthen his beneficence!
Linear border.

¹ V. Minorsky, article "Tiflis" in *E.I.*; Nasavī, trans. by Necip Asım, *Celālüttin Harezemşah*, Istanbul, 1934 (p. 76 on the capture of Rusudan's treasure).

- Æ a) 25 × 30 mm. 21.15 gr.
 b) 28 × 40 mm. 15.79 gr. (Fish-shaped planchet)
 c) 24 × 32 mm. 16.21 gr. Counterstamp.

Barataev, *Num. fakty*, section III, Pl. VII; Pakhomov, *Monety Gruzii*, pp. 112-16, Pl. IX, Nos. 151-54.

PLATE II, 9 and III, 1-2.

On the reverse of example (a), part of the coin's original obverse legend, namely the Georgian ecclesiastical majuscules of "Vetskhli," is plainly visible beneath the overstrike. This portion of the legend is common to irregular coppers of both T'amar and Giorgi Lasha.

The fish-shaped planchet of example (b) suggests that this is an overstrike on a copper of Giorgi Lasha rather than of T'amar. Giorgi's irregular coppers assume other fantastic shapes, such as those of birds, crescents, etc.¹

Example (c) is counterstamped with the plain cipher of Queen Rusudan (Pakhomov's figure 7), applied on top of Jalāl al-Dīn's restrike in such a way as to obliterate the end of the word "Sultān." Pakhomov affirms that when this counterstamp is found in conjunction with Jalāl al-Dīn's restrike on Georgian irregular coppers, the counterstamp is always seen beneath (i.e., applied previously to) the Khwārazmian Shah's restrike.² This conflicts with the evidence of our specimen, as well as that of several illustrated in the literature.³ An example in a private collection in New York has the counterstamp "D with a dot" applied before Jalāl al-Dīn's restrike, and the Rusudan cipher counterstamp applied on top of Jalāl al-Dīn. Pakhomov must surely be mistaken in thinking that the Rusudan cipher counterstamp was used only up to 1226. The evidence shows conclusively that it was also used afterwards, to revalidate the coins so roughly treated by the invader.

* * *

¹ Pakhomov, *Monety Gruzii*, diagram facing p. 116.

² *Ibid.*, p. 127. Bykov, in *Pamyatniki epokhi Rustaveli*, p. 89, repeats this statement.

³ W. H. Valentine, *Modern Copper Coins of the Muhammadan States*, London, 1911, p. 117, No. 37. This example is copied, via Langlois, from Barataev, section III, Pl. VII, No. 1. Cf. also Barataev's Nos. 6, 8 and 10. An example in the Cabinet des Médailles, and several in the British Museum collection, have Rusudan counterstamps clearly applied on top of (i.e., subsequently to) Jalāl's restrike.

While Jalāl al-Dīn and his followers were in control of Tiflis and most of eastern Georgia, Queen Rusudan and her court were at K'ut'ais in western Georgia, the capital city of Imeret'i. In all probability, it was there that Rusudan's copper coins of 1227 were first struck. However, the abundance in which they are found and the numerous minor variations in design suggest that they continued to be struck after the Queen's return to Tiflis in 1230, though they all bear the date 1227.

13. Regular coppers. [K'ut'ais and Tiflis] A.D. 1227.

Obv. In centre, the letters $\overline{\text{R S N}}$, RSN, for Rusudan, surmounted by a sign of abbreviation, the whole surrounded by an ornamental device similar to that employed on the counterstamps of Rusudan's reign:



Into the fringe of this motif are woven the Georgian ecclesiastical majuscules $\text{K' K. N. V. i. M. Z.}$, K'.K.N.Vi.M.Z., for K'oronikons 447, or 1227 A.D.

Linear border.

Rev. الملكة الملوك والملكات	Queen of Kings and Queens,
جلال الدنيا والدولة والدين	Glory of the World, Kingdom and Faith,
روسدان بنت تامار ظهير المسيح	Rusudan, daughter of Tamar, Champion of the Messiah,
اعز الله انصاره	May God increase [her] victories. ¹

Border of dots.

Æ 23-28 mm. 3.66, 3.97, 5.05, 5.28, 5.46, 7.15 and 9.49 gr.

Barataev, section III, Pl. VI; Langlois, *Essai*, p. 72, Pl. VI, Nos. 2-3; Pakhomov, *Monety Gruzii*, pp. 116-18, Pls. IX, Nos. 156-57 and X, Nos. 158-59. Pakhomov's estimate of the average weight as 2.65 gr. is too low.

PLATE III, 3-5.

¹ The same vagueness of gender occurs here as on the reverse of T'amar's irregular coppers, No. 9, *q.v.* In the formulation of this title, Rusudan has taken a leaf out of the book of her foe, Jalāl al-Dīn.

The reoccupation of Tiflis by Rusudan in 1230 is marked by the resumption of silver minting after the lapse of over a century. Byzantine in affinity of design, this series belongs in format and weight to the Near Eastern dirhem standard.

14. Dirhem [Tiflis] A.D. 1230.

Obv. Bust of Christ, bearded, facing, head and shoulders length, mantle and nimbus. Right hand in blessing, left holding Book of Gospels with three pellets on cover. In field: $\overline{\text{IC}}$ $\overline{\text{XC}}$

Margin: $\overline{\text{საქელიტა გჰვტისიტა იტჩდა კ'}}$ $\overline{\text{EB}}$ $\overline{\text{საქელიტა გჰვტისიტა იტჩდა კ'}}$
 + $\overline{\text{EB}}$ (sic) $\overline{\text{EB}}$

abbreviated for: Sakhelit'a Ghvt'isit'a¹ itchda K'. EB (sic) Vi.N. (450), i.e., In the name of God, was struck in the K'oronikon EB (sic) 450, or A.D. 1230.

Border of dots.

Rev. $\overline{\text{R S N}}$ = RSN, for Rusudan.

Round this, double linear border containing ornamental pattern of stars and crescents.

Outer margin: Traces of

الملكة الملكات جلالة (sic) الدنيا والدين رسودان بنت تمار ظهير المسيح

Queen of Queens, glory of the World and Faith, Rusudan, daughter of Tamar, champion of the Messiah.

R 23 mm. 2.70 gr.

PLATE III, 6.

Barataev, section III, Pl. VI; Langlois, *Essai*, p. 73, Pl. VI, Nos. 4-6; Pakhomov, *Monety Gruzii*, pp. 118-22, Pl. X, Nos. 160-74.

The design of the bust of Christ on the obverse is taken from the nomisma of the Byzantine emperor Nicephorus III Botaniates (1078-81).² This explains why these silver dirhems of Rusudan are referred to in Georgian medieval charters as "Botinati" or "Botinauri."³

They should not however be confused with the gold "Botinati" circulating in Georgia at this period, which are the authentic By-

¹ Most examples have the more correct form Ghvt'isait'a.

² Cf. Wroth, *Catalogue of the Imperial Byzantine Coins in the B.M.*, II, London, 1908, p. 535, Pl. LXIII, No. 4.

³ Langlois, *Essai*, p. 73.

zantine gold pieces of Nicephorus III and are not infrequently discovered within the historical boundaries of Georgia.¹ In the absence of indigenous gold currency, the Byzantine nomisma enjoyed great favor in Georgia, particularly between the eleventh and thirteenth centuries. Besides this gold Botinati, such terms as Kostantinati and Perpera occur in deeds of gift to monasteries, while the will and testament of King David the Builder contains mention of the *dukati* or ducat, the gold piece of the Emperor Constantine X, Dukas (1059-67). The regular circulation of Byzantine gold in Georgia led the thirteenth century geographer Zakariyā al-Qazvīnī to conclude that it was actually minted at Tiflis. "One finds there", he says in his *Āthār al-bilād*, "the dinar which is called *perpera*. It is a good coin, hollow and of concave shape, bearing Syriac legends and images of idols. . . . It is the money of the land of the Abkhazians and the work of their kings."² (It is not hard to recognize behind this quaint description the standard Byzantine scyphate nomisma). It would be wrong to follow Kakabadze in supposing that the Georgians minted their own scyphate gold pieces,³ for which there is no numismatic evidence. The capture of Constantinople by the Crusaders in 1204 interrupted the direct flow of Byzantine gold into Georgia, with the result that it gradually disappeared from general circulation there.

In addition to these data on the circulation of Byzantine gold within Georgia itself, it is worth noting that the Georgian monks of the Iberian Monastery on Mount Athos were keeping account of gifts from pious benefactors in terms of drahkani or bezants called "Dukati" (after Constantine X), "Romanati" or "Hromanati" (after Romanus IV, Diogenes, 1067-71), "Dukamikhaylati" (after Michael VII, Dukas, 1071-78) and "Votoniati," sometimes corrupted into "Potonati" (after Nicephorus III), as well as hyperpera "Aleksiati" (after Alexius Comnenus, 1081-1118).⁴

¹ E. A. Pakhomov, *Klady Azerbaydzhana i drugikh respublik i kraev Kavkaza*, fasc. II, Baku, 1938, No. 407; T'. Lomouri, in *Shota Rustavelis epok'is materialuri kultura*, Tiflis, 1938, pp. 300-1. ² Cited by Langlois, *Essai*, p. 48.

³ S. Kakabadze, "Sap'asis istoriisat'vis Sak'art'veloshi," in *Saistorio moambe*, II, fasc. 1, Tiflis, 1925, pp. 1-35.

⁴ M. Janashvili, *At'onis Iveriis monastiris 1074 ds. khelnadseri, aghapebit'*, Tiflis, 1901, pp. 216-77; R. P. Blake, "Some Byzantine accounting practices illustrated from Georgian sources," in *Harvard Studies in Classical Philology*, LI, 1940, pp. 11-33.

To revert now to the description of Rusudan's silver coin of 1230, it is curious to note that the Queen's name is regularly transliterated on the Arabic legend of this series as Rusūdān, whereas the coppers have Rūsudān.¹ On the specimen in the ANS collection, this part of the legend is effaced. A most curious feature of this example, however, is the insertion into the obverse Georgian legend of what can only be read as the majuscules E.B., between the K' (for K'oronikons) and the letters Vi.N., for year 450 of the Paschal cycle. None of the specimens illustrated in the literature has this peculiarity. It can hardly represent the plural suffix *-eb(s)*, since "K'oronikon" is invariably used in the singular in such a context. Nor can one seriously entertain the theory that E.B. stands for "Eras Bagrationt'a" (or "Epok'is Bagrationt'a"), for "Era or Epoch of the Bagratids," as such a formula has never been recorded on the hundreds of medieval coins and documents known to us. The solution of this point must await further investigation.

¹ Pakhomov (*Monety Gruzii*, p. 117) was the first to notice this.

3 Lang

V. GEORGIA UNDER THE MONGOLS

The latter half of Rusudan's reign was a period of unrelieved disaster. In 1236, the armies of the Mongols, sweeping all before them, advanced from Ganja towards Tiflis. The country had scarcely recovered from the depredations of Jalāl al-Dīn, and its citadels were in no state to resist the invaders. The Queen and her court had to flee once more into Western Georgia, and the land was given over to the conquerors.

After a few years, Rusudan offered her submission to the Mongol noyans. Her son David (surnamed by the Mongols Nārīn, i.e., the slender, well-proportioned) was sent to the Great Khan's headquarters at Karakorum to pay homage and be invested with the vassal kingship of Georgia. Meanwhile, the Mongols defeated Rusudan's son-in-law, the Seljuk Sultan of Iconium, in 1243. This resulted in the liberation of Rusudan's hated nephew, also called David, an illegitimate son of the Queen's late brother, King Giorgi Lasha. The Sultan had been acting as custodian and jailor of this David, whose large, burly stature later caused him to be nicknamed Ūlūgh, the big. A popular movement of hostility towards Rusudan and her heir was cleverly exploited by the Mongol overlords of Georgia, who had Ulugh David crowned at Mtskhet'a and sent him after his cousin to pay homage at Karakorum. The two Davids were present at the inauguration of Güyük Khan in 1246, after which they returned to Tiflis to rule jointly under Mongol supervision.

Queen Rusudan had already died in 1245, according to some accounts, by suicide, to others, as a result of her notorious debaucheries. The co-kings resided jointly at Tiflis on terms of amiable co-operation, until Hulagu Khan, who arrived in Persia in 1256, took a dislike to David Nārīn. The latter fled to K'ut'ais and established a separate monarchy in Western Georgia.¹

¹ Sir Henry Howorth, *History of the Mongols, Part III: The Mongols of Persia*, London, 1888, pp. 23-61; Allen, *History of the Georgian People*, pp. 112-16; Minorsky, "Tiflis," in *E.I.*

These events are fully reflected in the monetary history of the period.

First Mongol Occupation Series (Regency of Queen Turakina)

The ANS has a number of silver dirhems minted at Tiflis, as well as at Ganja and Tabriz, in A.H. 642-43, by authority of the Commander-in-Chief of the Mongol armies. Queen Turakina, widow of the Great Khan Ogotay (Ögödei), was regent of the Mongol dominions.

15. Dirhem Tiflis A.H. 642/1244-5 A.D.

Obv. Galloping horseman, to left, turned in the saddle and drawing bow to the right; behind, stork; beneath horse, hound. In some cases, the stork is changed into a star or Solomon's seal, and the hound replaced by obscure shapes suggesting either a serpent or foliage. Other examples, of uncertain mint, show the horseman galloping to right instead of to left.

Above: الغ منقل الوش بيك

The Great Mongol Viceroy (Commander-in-Chief)

Border of dots.

Rev.	لا اله الا	There is no god but
	الله محمد	Allāh: Muḥammad
	رسول الله	Is the Messenger of Allāh.

Margin in four segments has Arabic mint-date formula: Tiflis, 642.

Border of dots.

R 21-22 mm. 2.67-2.85 gr. PLATE III, 7-8 and IV, 1.

S. Lane-Poole, *The Coins of the Mongols in the British Museum*, London, 1881, No. 1.

The obverse legend, reading "The Great Mongol Alūsh (Ulūsh) Bek," has given rise to some speculation. Unsuccessful attempts have been made to interpret this as a proper name or honorific title. A simpler and more convincing explanation is that Ulūsh Bek, which

3*

also occurs in the form Ulūs Bek, is connected with the Uigur word Ulus, Ūlūs or Ulūs, meaning nation, great clan or horde. Radlov gives Ulus and Ulush as alternatives.¹ According to Budagov, Ulūs Bek or Amīr al-Ulūs were titles indicating a rank equivalent to that of a Viceroy of the Caliph in Islam. In this, he follows Ibn Baṭūṭa, who says that "Amīr al-Ulūs" corresponds to "Amīr al-Umarā'."² The sense of the legend thus amounts simply to "[Money issued by] the Great Mongol Viceroy (Supreme Commander)."

The absence of any reference to the Great Khan of Karakorum need cause no surprise, since nominal power resided with Ogotay's widow Turakina pending the election of a new Great Khan. The Commander-in-Chief in Persia and Transcaucasia was Baiju (Bichui), a nominee of Turakina. There is no need to see, as does Lane-Poole, the minting of these coins as a pretension to sovereignty on some pretender's part.³

It is worth noting that the galloping bowman design of this Turakina series closely resembles that of the copper coins minted at Erzerum by the local Turkish dynast Muḥammad ibn Salduq (c. 1174-1200), a vassal of the Seljuks of Rum.⁴ It is natural that this motif should have appealed to the Mongols, who are in fact known to contemporary Armenian chroniclers as "the nation of the Archers."

Co-regnancy of the Two Davids

While the two cousins were absent at Karakorum, copper coins were already being minted in Georgia in the name of David Narin, son of Rusudan. The first of these were struck in 642/1244-5 at

¹ V. V. Radlov, *Opyt slovarya Tyurkskikh narechiy*, I, St. Petersburg, 1893, pp. 1696-97. In Sino-Mongolian official terminology, "Yeke Mongghol ulus" was regularly used to signify "The Great Mongol Empire" (Francis W. Cleaves, "The Sino-Mongolian inscription of 1362," in *Harvard Journal of Asiatic Studies*, XII, Nos. 1-2, 1949, pp. 94-95.)

² Lazar Budagov, *Sravnitel'ny slovar' Turetsko-Tatarskikh narechiy*, I, St. Petersburg, 1869, pp. 88-89. Ibn Baṭūṭa, ed. Defrémery and Sanguinetti, II, 395.

³ Cf. Lane-Poole, *Coins of the Mongols*, p. liii.

⁴ Illustrated by Tiesenhausen, *Mélanges de numismatique orientale*, II (*Extrait de la Rev. Num. Belge*, 1875), p. 55, also by Lane-Poole, *B.M. Or. Cat.*, IX, No. 310a.

Dmanisi, then an important trading centre, situated in K'art'li about a hundred kilometres to the south-west of Tiflis. The minting of this series was then transferred to Tiflis (A.H. 645, 647, 650/1247-53 A.D.).¹

The ANS collection does not include any of David Narin's coppers, but it has an interesting variety of his silver dirhem of 1247.

16. Dirhem Tiflis Year of the Paschal Cycle 467/1247 A.D.

Obv. The king on horseback, left; beneath, foliage and obscure shapes, possibly representing hound. Above, left, royal monogram formed of the two Georgian majuscules ღ ზ, D.T., for Davit'. Above, right Georgian majuscules ჟ ლ ს ბ, for K'oronikons 467, or 1247 A.D. Border of dots.

Rev.	بقوة خدا	By the power of God
	دولة كوك...	Dominion of Kūyuk (or Gūyuk)
	قان بنده	Qā'ān — Slave,
	داود [ملك]	Dā'ūd [King.]

Vertically upwards, at right:

ضرب تيفليس	Minting of Tiflis.
------------	--------------------

Border of dots.

R 23 mm. 2.58 gr.

PLATE IV, 2.

Cf. the standard type illustrated by Barataev, *Num. fakty*, section III, Pl. VIII, Nos. 1-2 and Langlois, *Essai*, Pl. VII, No. 1.

The design of the obverse belongs to a familiar Anatolian pattern, which also features on a number of issues of the Armenian kingdom of Cilicia. A parallel may be drawn between this Georgian type and

¹Langlois, *Essai*, pp. 82-83, erroneously ascribes this series of coppers to David Ulugh, forgetting that David Narin also ruled for several years with his cousin at Tiflis. The mint-name Dmanisi was first read by Professor Giorgi Tseret'eli of Tiflis University (G. Tseret'eli, "Dmanisis monetis gamo," in *Literaturuli dziebani*, II, Tiflis, 1944, 167-72.) It had previously been taken for a misspelling of Tiflis. For further details, see T'. Lomouri, "XIII saukunis K'art'uli p'ulis sakit'kht'a gamo," in the Tiflis Museum *Moambe*, XB, 1940, pp. 123-24.

that of the coins of Kaikhusrau I, Sultan of Iconium (1192–1200), with which the Georgians were undoubtedly familiar. A clear distinction is to be made between the sedate pose and regal gait of equestrian figures of this group, and the energetic galloping movement of the archer on the Turakina series.

This is the only specimen so far published portraying the king riding to left, instead of to right.¹ The royal monogram and the Georgian date formula have changed places to fit the new arrangement of the design. Some examples of the Turakina galloping archer type show a comparable reversal of the obverse design.

With regard to the reverse, the Persian inscription, except for the word “bandeh”, was completely deciphered by Prince Barataev. Langlois tried to improve on Barataev’s reading, but produced a rendering which conflicts with the specimens illustrated in the literature, as well as this ANS variant specimen.² Langlois’s emended version seems to have been accepted unquestioningly by present-day Georgian numismatists.³ It now seems clear that Barataev’s reading, with the word “bandeh” added to the third line, must be adopted in preference to that of Langlois.

While both Davids issued their own coins during their co-regnancy at Tiflis, those of David Ulugh are not represented in the ANS collection. A copper coin, with the date mostly effaced, and minted in the name of David, “son of Giorgi,” was attributed by Langlois to King David the Builder (1089–1125), son of Giorgi II. What remains of the date of a specimen published by Langlois was read by him as A.H. 5** (A.D. 1106 onwards), which could well fall in David the Builder’s reign. On the other hand, the date can equally well be read from Langlois’s engraving as A.H. *5*, which could only be 65*, i.e., 1252 onwards.⁴ The more recently accepted view is that this type belongs to Ulugh David, son of Giorgi Lasha.⁵

¹ There was a specimen in the Gagarin collection (A. Weyl, *Verzeichniss der reichhaltigen Sammlung des Fürsten G...*, Berlin, 1885, No. 2097).

² Barataev, *Num. fakty*, section III, pp. 139–41; Langlois, *Essai*, p. 83.

³ E.g., T^c. Lomouri, “XIII saukunis K’art’uli p’ulis sakit’kht’a gamo,” in the Tiflis Museum *Moambe*, XB, 1940, p. 124.

⁴ V. Langlois, “Supplément à l’essai de classification des suites monétaires de la Géorgie,” in *Rev. Num. Belge*, 1861, pp. 336–37, Pl. XIX, No. 3.

⁵ Pakhomov, *Monety Gruzii*, pp. 80–81; T^c. Lomouri, in Tiflis Museum *Moambe*, XB, 1940, pp. 125–28.

There exists in addition a well authenticated silver series of Ulugh David, minted at Tiflis in A.H. 650, 651, 652 and 654 (1252–56 A.D.). The king is styled David, son of Giorgi, Bagrationi, vassal of the Mongol Great Khan Mangu.¹

To complete this numismatic account of the two Davids, there also exists a silver coin of Byzantine type issued by the two cousins jointly. On the obverse, the kings are shown standing together, while the reverse depicts the Holy Virgin. This coin was probably struck at K'ut'ais in 1261–62, after Ulugh David had rebelled against the Mongol overlords, and taken refuge with David Narin in Western Georgia.²

Ulugh David eventually made his peace with the Mongols, returned into K'art'li and died there in 1269 or 1270. David Narin on the other hand lived on in K'ut'ais, dying at an advanced age in 1293 after a reign of half a century first in Eastern, and then in Western Georgia.

Second Mongol Occupation Series (Great Khan Mangu)

The coins of the two Davids described in the preceding section are all rare and cannot have been struck in any considerable quantity. Much more common are the dirhems struck at Tiflis between A.H. 650 and 659 (1252–61 A.D.) in the name of the Great Khan Mangu (Möngke) alone, without any mention of his Georgian vassals. Mangu ruled from 1251 to 1259.

17. Dirhems Tiflis Various dates.

Obv. Area, within square of dots:

لا اله الا

There is no god but

¹ C. M. Fraehn, "De Il-Chanorum seu Chulaguidarum numis," in *Mémoires de l'Académie Impériale des Sciences de Saint-Petersbourg*, 6me. série: Sciences Politiques, Histoire et Philologie, II, 1834, p. 492, Nos. 8, 10; p. 494, No. 14; Langlois, *Essai*, pp. 83–84, Pls. VII, No. 2 and X, No. 2.

² Barataev (*Num. fakty*, section II, Pl. I, No. 1) and Langlois (*Essai*, pp. 92–93, Pl. VII, Nos. 9–10) published this coin, but failed to arrive at a satisfactory attribution. See the article by T'. Abramishvili, "Ori Davit'is moneta," in the Tiflis Museum *Moambe*, XVIB, 1950, pp. 139–43. Illustrations of this coin type accompany D. G. Kapanadze's article, "Tak nazyvaemye Gruzinskie podrazhaniya Trapezundskim aspram," in *Vizantiysky Vremennik*, III, 1950, Pl. I, Nos. 3 and 8.

الله وحده

Allāh alone.

لا شريك له

He has no associate.

Margin, in four segments between square and outer circle of dots, contains date formula.

Rev. Area, within square of dots:

مونغكا قا

Mungka (Möngke) Qā-

ان لاعظم

ān, the Supreme,

لعادل

The Just.

(*alifs omitted, sic*).

Margin, in segments between square and circle of dots, contains mint formula.

AR 21-25 mm. 2.20-2.77 gr.

PLATE IV, 3-7.

Fraehn, *De Il-Chanorum numis*, Nos. 3-6; Lane-Poole, *Coins of the Mongols*, Nos. 3-5. Since this and virtually all later Mongol series have borders of dots, this feature will not be specifically mentioned in the subsequent descriptions.

Many examples of this series have a damghah in the center of either obverse or reverse, or both, thus: 卐

Most specimens are decorated with small six-pointed stars, Solomon's Seals, rosettes, leaves and other ornamental motifs worked into the area, either in conjunction with or instead of the damghah.

The Tiflis dirhems of Mangu in the ANS collection bear the following dates:

A.H. 652. 10th. of Sha'bān

PLATE IV, 3.

653. 15th. (?) of Ṣafar

PLATE IV, 4.

Rabi' II

Jumādā I

Jumādā II

Rajab

Sha'bān

Ramaḍān

Shawwāl

654. Şafar
Jumādā I
Sha‘bān PLATE IV, 5.
655. Dhū‘l-Ḥijjah
656. Sha‘bān
Ramaḍān
Shawwāl
657. Rabī‘ II (plus one specimen of 657 with month effaced).
PLATE IV, 6.
658. Sha‘bān
Dhū‘l-Ḥijjah (plus one of 658 with month effaced).
659. Month effaced. PLATE IV, 7.
- 65*. Muḥarram (?)
Sha‘bān (marginal legend in part retrograde)
Dhū‘l-Qa‘dah.

Hulagu Il-Khan (1260–65) and King David Ulugh

At the time of Mangu’s death in 1259, his brother Hulagu was commanding the Mongol armies in the Near East. Hulagu now became the autonomous ruler of Persia, Mesopotamia and neighbouring territories conquered by the Mongols, founding the Il-Khanid dynasty which ruled there during the succeeding century. His capital was at Marāgha in Azerbaijan. He died on February 8th., 1265 (A.H. 663). The coins struck by Hulagu and his line at Tiflis and other mints in Georgia form an important and numerous series.

In spite of the practically independent status of Hulagu and his line, they continued for the time being to acknowledge the supreme overlordship of the Great Khaqan Khubilay at Daidu. The formula “Qā‘ān al-‘Ādil” on the coins of Hulagu and Abagha refers not to the Il-Khans themselves, but to Khubilay.

The dirhems struck by Hulagu at Tiflis make a break with the pattern of the Mangu series. Hulagu is not named on them. They have the date formula in the margin, accompanied in some but not all cases by the mint formula of Tiflis. E. A. Pakhomov conveniently

terms this series "Kaanniki Type I."¹ Specimens are known with the dates A.H. 660, 661 and 662 (A.D. 1261-64).

18. "Kaanniki Type I." (Mint-date formula in margin)

Obv. Within ornamented border:

لا اله الا	There is no god
لا الله وحده لا	But Allāh alone.
شريك له	He has no associate.

Marginal legend with mint-date formula, viz:-

a) A.H. 660	Rabī' II. Mint effaced.	PLATE IV, 8.
b) 661	6th. of Sha'bān. No mint.	PLATE IV, 9.
c) 6** Tiflis.	PLATE IV, 10.
d) ?	Ramaḍān. Tiflis.	PLATE IV, 11.

Rev. Area, within ornamented hexagon:

قان	The Qā'ān
العادل	The just.

R 20-23 mm. 2.54-2.71 gr.

PLATE IV, 8-11.

Fraehn, *De Il-Chanorum numis*, No. 33; Lane-Poole, *Coins of the Mongols*, No. 47; A. K. Markov, *Inventarny katalog Musul'manskikh monet Imperatorskogo Ermitazha*, St. Petersburg, 1896, pp. 569-70, Nos. 17-20.

Abagha Khan (1265-82) and David Ulugh (to 1270) and Dimitri the Devoted (1271-89)

Abagha's first series of Tiflis dirhems differ from those of his father Hulagu by having the date formula in the area of the obverse instead of the margin. The dating is meticulous, the months being regularly specified. The mint is omitted. This series is referred to by Pakhomov as "Kaanniki Type II."

¹ E. A. Pakhomov, *Klady Azerbaydzhana i drugikh respublik i kraev Kavkaza*, fasc. II, Baku, 1938, p. 34, note.

18A. "Kaanniki Type II." (Date in center)

Obv. Within ornamented border, pious formula as in previous example.
Between first and second lines of pious formula, date.

Rev. Area, within ornamented hexagon:

The Qā'ān
The just.

R 19-23 mm. 2.41-2.96 gr.

PLATE V, 1-6.

Fraehn, Nos. 34, 36-40, 42-51, 53-58; Lane-Poole, *Coins of the Mongols*, Nos. 43-46; Markov, *Inventarny katalog*, Nos. 37-60.

The examples of this type in the ANS collection bear the following dates:

A.H. 663. Dhū'l-Qa'dah

665. Shawwāl
Dhū'l-Hijjah

PLATE V, 1.

666. Jumādā I
Rajab

667. Muḥarram

668. Šafar
Rajab
Dhū'l-Hijjah

PLATE V, 2.

669. Rajab
Sha'bān

670. Šafar
Ramaḍān
Shawwāl
Dhū'l-Qa'dah

PLATE V, 3.

671. Muḥarram
Dhū'l-Qa'dah

672. Šafar
Shawwāl

673. Shawwāl

674. Rabi' II PLATE V, 4.
 Rajab
 Ramaḍān
675. Muḥarram
676. Rajab
 Rabi' I
680. Rabi' I PLATE V, 5.
 Sha'bān (2 specimens, one doubtful).

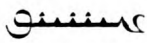
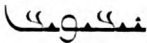
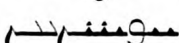
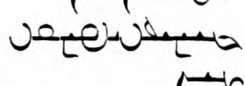
Also two specimens with undeciphered legends in the place usually occupied by the date formula. PLATE V, 6.

The foregoing two series of anonymous "Kaanniki" were the only type of coinage minted for Georgia by the Mongols for almost two decades. The Georgian national series struck in the names of the two Davids as vassals of the Mongols had long since been discontinued. Towards 1280, however, Abagha's conciliatory attitude towards the Georgian Christian population is reflected in the coinage. As is well known, Abagha sought alliance with Western Christendom against the Muslim powers. The Georgian chroniclers speak in favourable terms of his treatment of the Christians in the Il-Khanid dominions.

Several series of "Hulaguid-Christian" dirhems were struck at Tiflis from A.D. 1279 onwards. Of those minted under Abagha, the ANS collection has five specimens. It is important to note that the first type described by Langlois, following Fraehn, as pertaining to Abagha and Dimitri the Devoted, turns out on examination of the illustration to belong to Ghāzān Maḥmūd and Wakhtang III (c. 1302).¹

19. Dirhems [Tiflis] c. A.H. 680/1281 A.D.

Obv. Five-line inscription in Mongol written in the Mongol-Uigur character:

Qaghanu		Of the Khaqan (Khaghan)
nereber		In the name
Abagha-yin		By Abagha
deletkegülük-sen		Struck. (lit.: "Striking of Abagha").

¹ Fraehn, *De Il-Chanorum numis*, No. 60, Pl. IV, No. 6; Langlois, *Essai*, p. 85, No. 37.

Above inscription, ornamental device of interlaced ovals, etc.

Rev. Area, within square:

بسم الاب	In the name of the Father
والابن وروح	And the Son and the Spirit
القدس اله	Holy — God
واحد †	One. †

Margin, in segments between square and outer circle, contains date formula. The specimens in the ANS collections bear the dates A.H. 680 (?); Rabīʿ II, 68*; 68*; Muḥarram, 6**; Rabīʿ II, 6**.

R 21–23 mm. 1.97–2.40 gr.

PLATE V, 7–8.

Fraehn, Nos. 62 and 63; Langlois, *Essai*, p. 87, No. 38. E. Drouin expressed the view that Abagha was arrogating to himself the title of Khaqan in the inscriptions of these coins ("Notice sur les monnaies mongoles," in *Journal Asiatique*, May–June, 1896, p. 507). Professor Francis W. Cleaves of Harvard University kindly informs me, however, that this is not so, and that documentary evidence confirms that the early Il-Khans sedulously maintained their nominal allegiance to the Supreme Khaqan of Daidu. On the title of Il-Khan, see further Mostaert and Cleaves, "Trois documents mongols des Archives Secrètes Vaticanes," in *Harvard Journal of Asiatic Studies*, XV, 1952, p. 454. On some of these coins, as Professor Cleaves further points out to me, the ruler's name appears in the form "Abugha".

Aḥmad Tegüder Khan (1282–84) and Dimitri the Devoted


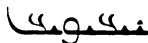
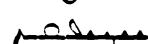


Abagha was succeeded as Il-Khan by his brother Tegüder ("The Perfect"), who assumed the title of Sulṭān Aḥmad Khan on his official conversion to Islam. Aḥmad's short reign was mainly occupied with wars against his nephew Arghun, who was the son of Abagha and had been designated by that ruler to succeed to the Il-Khanid dominions. King Dimitri of Georgia at first took the side of Aḥmad, who was however defeated by Arghun and put to death in August, 1284.¹

¹ Allen, *History of the Georgian People*, p. 119; Howorth, *History of the Mongols*, III, 300–7.

The ANS collection includes one Hulaguid-Christian dirhem struck at Tiflis under Aḥmad, while Dimitri II was vassal king of Eastern Georgia.

20. Dirhem [Tiflis] A.H. 682 (?) / 1283-4 A.D.

Obv. Five-line inscription in Mongol written in the Mongol-Uigur character:

Qaghanu		Of the Khaqan
nereber		In the name
Amadun		By Aḥmad
deletkegülük-		Struck.
sen		

Above inscription, ornamental device of interlaced ovals, etc.

Rev. Area, within square, containing Christian pious formula in Arabic as under Abagha, but in place of the Cross, a six-pointed star.

Margin, in segments between square and outer circle, contains date formula: A.H. 682 (?).

R 23 mm. 2.31 gr.

PLATE V, 9.

Fraehn, Nos. 70-71; Langlois, *Essai*, p. 87, No. 39; Drouin, "Notice sur les monnaies mongoles," pp. 517-19.

The substitution of a star for the Christian cross on the reverse of Aḥmad's Hulaguid-Christian dirhems may have some connection with his conversion to Islam and consequent lack of sympathy towards the Christian faith.¹

Arghun Khan (1284-91) and Dimitri the Devoted

Dimitri had abandoned the cause of Aḥmad in time to make his peace with the victorious Arghun. He was a close friend of Arghun's powerful minister Bukay, Dimitri's daughter being married to Bukay's son. In 1289, however, Bukay was disgraced and executed. Arghun threatened to ravage Georgia as a reprisal for Dimitri's alleged complicity in Bukay's intrigues. To save his people, Dimitri voluntarily surrendered to Arghun, who tortured and executed him.

¹ Cf. Howorth, *History of the Mongols*, III, 297.

His devotion earned him the title of "T'avdadebuli," the Self-Sacrificed or Devoted.

Dimitri was succeeded on the East Georgian throne by Wakh-tang II (1289-92), son of King David Narin of Imeret'i. Of Wakh-tang II no coins are known.

Arghun died, probably poisoned, on March 10, 1291.

The ANS collection contains twenty Hulaguid-Christian dirhems struck for Georgia under Arghun. They resemble previous issues, and bear the Christian cross on the reverse.

21. Dirhems [Tiflis] A.H. 683-86/1284-8 A.D.

Obv. Four-line inscription in Mongol:

Qaghanu	ᠠᠭᠠᠩᠭᠠᠨᠠ	Of the Khaqan
nereber	ᠨᠡᠷᠡᠪᠡᠷ	In the name
Arghunu (in some examples)	ᠠᠷᠭᠠᠨᠠ	By Arghun
Arghunun)	(ᠠᠷᠭᠠᠨᠠᠨ)	
deletkegülk	ᠳᠡᠯᠡᠲᠡᠭᠡᠭᠦᠯᠠᠭ	Struck.
Fifth line:	ᠠᠷᠭᠠᠨ	Arghūn

Rev. Area, within square, containing Christian pious formula, concluding with Cross and ornamental motif.

Margin, in segments between square and outer circle, contains date formula, crudely inscribed.

R 20-22 mm. 2.19-2.46 gr. PLATE V, 10-12 and VI, 1-2.

Fraehn, Nos. 77-78; Langlois, *Essai*, pp. 87-88, No. 40.

On most specimens of the above series, the date formula is so roughly engraved that the following table of dates compiled from the examples in the ANS collection must be considered as provisional:

A.H. 683.	PLATE V, 10.
684.	
685.	PLATE V, 11.

686. Rabī' I
Rabī' II

PLATE V, 12.

(and others of 686 with month effaced).

Langlois further lists the year 687/1288-9 A.D. It is noteworthy that the series comes to an end in the following year, when the Christian king Dimitri was executed by Arghun.

Variations occur in the spelling of Arghun's name in the Mongol inscription. The correct form is "Arghunu," genitive of Arghun. Many examples have the grammatically incorrect "Arghunun." The final element "-sen" of the participle "deletkegülükxen" has been suppressed to make room for the addition of "Arghūn" in Arabic in the fifth line. The remaining portion often reads "deletkegülk-" instead of "deletkegülük-."

Gaikhātu Khan, Arinchin Turji (1291-95) and David VIII

Wakhtang II of Georgia died in 1292 and was succeeded by David VIII (or, following another system of computation, David VI), son of Dimitri the Devoted.

In the previous year, Arghun had been succeeded as Il-Khan by his brother Gaikhātu, whose title Arinchin Turji or Precious Jewel derives from the Tibetan "rin-chen rdo-rje" and was bestowed on him by the Lamas. Gaikhātu was murdered in 1295 by partisans of his cousin Baidu, who succumbed a few months later to Ghāzān.

The ANS collection has four Hulaguid-Christian dirhems struck at Tiflis under Gaikhātu. This series was formerly attributed to Arghun because the die-engraver has neglected to change the name of the ruler in the Mongol inscription.¹ Gaikhātu's honorific title written in Arabic characters, "Arīnchīn Tūrjī," replaces the name of Arghun beneath. This leaves no doubt as to the attribution of this series, since the historians of the time inform us that the title was bestowed personally upon Gaikhātu on his accession.²

¹ Drouin, "Notice sur les monnaies mongoles," pp. 522-25.

² Howorth, *History of the Mongols*, III, 357; Barthold, article "Gaikhātū" in the *Encyclopaedia of Islām*.

22. Dirhems [Tiflis] [c. 1291–95 A.D.]

Obv. Four-line inscription in Mongol as in preceding series, retaining the name of Arghun.

Fifth line:

ارینچین تورجی Arinchin Tūrjī.

Rev. Area, within square, containing Christian pious formula, concluding with Cross and/or star or other ornamental motif.

Margin, in segments between square and outer circle, contains date formula, crudely inscribed (effaced or illegible in all four specimens).

R 20–21 mm. 2.19–2.33 gr.

PLATE VI, 3–4.

This type is described by Fraehn, Nos. 80 and 89, but included under Arghun.

Ghāzān Mahmūd Khan (1295–1304), David VIII and Wakhtang III

Under Ghāzān, Mongol oppression and a revival of Muslim fanaticism drove David VIII in 1297 to rebel against his overlord and take refuge in the fastnesses of the Caucasus. From 1299 to 1301, the Mongols maintained David's brother Giorgi, later to rule as Giorgi the Brilliant, as their puppet ruler at Tiflis. They later replaced him by another brother, who ruled as Wakhtang III (1301–1308).¹

In general, however, Ghāzān was an energetic and enlightened ruler, under whom the Il-Khanid dominions reached a high point of prosperity. He reformed and standardized the coinage.² The Tiflis mint struck silver of both Hulaguid-Christian and standard Muslim types. An important event in Georgian economic history was the establishment of a mint at Akhaltsikhe, the capital of the province of Samtskhe-Saatabago in south-west Georgia.

Ghāzān died near Qazvin on May 17, 1304. His coins are frequently mentioned in Georgian charters under the name of Qazanuri, a term which may also have been loosely applied to other Il-Khanid silver coins circulating in Georgia.

¹ Howorth, *History of the Mongols*, III, 421–26; Allen, *History of the Georgian People*, p. 120.

² Howorth, *History of the Mongols*, III, 524–26; Rashid al-Dīn, "Povestvovanie o Gazan-Khane," in *Sbornik Letopisey*, trans. A. K. Arends, vol. III, Moscow-Leningrad, 1946.

⁴ Lang

23. Dirhems [Tiflis] A.H. 696/1296-7 A.D.

Obv.	بادشاه اعظم	The most mighty king
	سلطان محمود	Sulṭān Maḥmūd
	غازان خان	Ghāzān Khān,
	خلد الله ملكه	May God prosper his reign.

Rev. Area, within square of dots:

بسم الاب	In the name of the Father
والابن وروح	And the Son and the Spirit
القدس اله	Holy — God
ⲕⲣ ⲛⲓⲁⲩ	One. MP'D (for Mep'e Davit', King David) †

Margin, in segments between square and outer circle, contains date formula. In one case this can be read conjecturally as A.H. 696.

AR 20-21 mm. 1.84-2.33 gr.

PLATE VI, 5-6.

Barataev, *Num. fakty*, section III, pp. 172-73; Bartholomaei, *Lettres Numismatiques*, p. 112, Pl. II, No. 7; Langlois, *Essai*, p. 89, No. 41.

The royal monogram in the reverse area of David VIII's coins represents an evolution from the cross and ornament found on earlier series. The fact that the cross now occurs in the centre of the initial letter "D" of the king's name serves to stress his role as defender of the Christian faith.

No coins are known pertaining to the brief first reign of Giorgi V (1299-1301).

With Wakhtang III (c. 1301-1308) we come to the end of the Hulaguid-Christian issues. His reign is represented in the ANS collection by four dirhems, easily distinguishable from earlier types by the lay-out of the reverse.

24. Dirhems [Tiflis] [c. 1301-4 A.D.]

Obv. Qaghanu	قaghanu	Of the Khaqan
nereber	نereber	In the name
Ghazanu	Ghazanu	By Ghazan
deletkegülik-sen	دەلتکەگۈلیک-سەن	Struck.

Rev. Area, within linear square:

In centre, a Maltese Cross within linear circle (in one example, a small star appears between each arm of the Cross).

Inscription running round Cross:

بسم الاب والابن وروح

In the name of the Father and the Son and the Spirit.

At the end of the inscription a monogram, thus: \mathbb{E} made up of the Georgian ecclesiastical majuscules $\text{ჲ} \text{გ} \text{ღ}$, VNG, together with the letters $\text{ჲ} \text{ფ}$ = MP', the whole representing Vakhtang Mep'e, King Wakhtang.

Margin, in segments between square and outer circle, contains degradation of date formula.

R 21-22 mm. 2.26-2.36 gr.

PLATE VI, 7-8.

Fraehn, No. 86; Langlois, *Essai*, p. 90, No. 42.

Under Ghāzān, coins with Muslim legends were again minted at Tiflis, after an interval since the reign of Abagha. Note the new formula adopted for the Mongol inscriptions, indicating that Ghāzān no longer set store by acknowledging the suzerainty of the Supreme Khaqan of Daidu. The phrase "tngri-yin küchündür," in Sir Gerard Clauson's view, was taken over by Ghazan from the paizas issued by the Supreme Mongol Khaqan, on which the phrase regularly occurs in the preamble, sometimes in the ḥP'ags-pa and sometimes in the Uigur script.¹

¹ Cf. the Uigur-Mongol paiza illustrated in Yule and Cordier, *The Book of Ser Marco Polo*, 3rd. ed., London, 1903, vol. I, p. 355.

25. Dirhems Tiflis A.H. 701/1301-2 A.D.

Obv. Area, within ornamented pentagon:

الله	
لا اله الا	There is no god but Allāh
ضرب تفليس	Struck at Tiflis ¹
محمد	Muḥammad
رسول الله	is the Messenger of Allāh.

Vertically, at sides:

صلى الله عليه	God bless him. (The word الله at the top of the area is read twice).
---------------	--

In segments, between pentagon and linear border, date formula, decipherable in one case as **I, i.e., A.H. 701.

Rev. Five-line inscription in Mongol:

Tngri-yin	چىن گىرىن	Of Heaven
küchündür	كۈچۈندۈر	By the Power
Ghazanu	غازان	By Ghazan
deletkegülük-sen	دەلتكەگۈلۈك سەن	Struck

Between third and fourth lines:

غازان محمود	Ghāzān Maḥmūd
-------------	---------------

¹ This mint formula, which literally signifies "Striking of Tiflis," will henceforth be rendered more conveniently, if less grammatically, as "Struck at Tiflis."

To left, vertically:

𐰢
𐰣
𐰤

Æ 20–21 mm. 2.01–2.14 gr.

PLATE VI, 9–10.

Fraehn, No. 103; Lane-Poole, *Coins of the Mongols*, No. 110.

Various attempts have been made to read the three mysterious characters on the coins of Ghāzān Maḥmūd. They are obviously the special mark or sign which Rashīd al-Dīn records that Ghāzān had included in the design of his coins to prevent counterfeiting.¹ Terrien de la Couperie tried to read them as Ghāzān's name in the ḥP'ags-pa (Passepa) script,² but this was contested by Drouin, who thought however that "these unknown signs conceal some religious epithet after the style of Arinchin Turji."³ This is not very convincing, since if Ghāzān had had some such honorific title bestowed on him by the Lamas of Tibet, he would have had no valid object in wrapping it up in a cryptogram that nobody could read.

Sir Gerard Clauson has examined these coins, and has come to the conclusion that the signs are intended for the word *Qa'an* in ḥP'ags-pa, but were designed by someone with a highly imperfect knowledge of the ḥP'ags-pa script. The following observations are quoted by Sir Gerard Clauson's kind permission from notes on the subject addressed to the present writer:

"As regards Ghazan's *nīshān*, I have no doubt that it is in P'ags-pa, written by someone who had got the alphabet, but had never seen it written continuously. The main characteristics of the alphabet are that it is written vertically, and that the letters of each word are joined together by running the right vertical downwards.

"Equally I have no doubt that word is meant to be *Qa'an*. You will see at the top of the right column on the front of the *paiza* [reproduced in Yule and Cordier's *Marco Polo*, 1903 ed., I, plate facing

¹ Rashīd al-Dīn, trans. Arends, vol. III, 1946, p. 271: "[Ghāzān] first established according to his judgement the pattern of the coinage, set on it a mark (*nīshān*) such that nobody would succeed in imitating it, and ordered that throughout his dominions, gold and silver should be struck according to this pattern..."

See also Howorth, *History of the Mongols*, III, 525.

² Lane-Poole, *Coins of the Mongols*, p. lii.

³ E. Drouin, "Notice sur les monnaies mongoles," p. 532.

page 352] how the professional wrote it. The alternative—"Ga-za-n"—is so much less like the coins that it seems to me much less probable. I think that the resemblance of the first letter on one coin to the P'ags-pa syllabary *ma* is purely fortuitous.

"If I am right in thinking that the appearance of these signs and the adoption of the new formula *ingri-yin küchündür*¹ coincide, then I think the case is a cast iron one. Ghazan seems to have come to the throne in A.D. 1295; the P'ags-pa alphabet was invented in China in A.D. 1269, so was still new and wonderful. It may well have reached Ghazan on a *paiza* of the type illustrated in Yule's *The Book of Marco Polo* [1903 ed., I, plate facing page 352], which bears both the formula (the P'ags-pa rendering is "dénriyin k'uč'undur") and the word *qaghan* (there spelt *gha'an*) in P'ags-pa. As the formula was, so to speak, the Mongol *bismillah*, it no doubt appeared on all state papers, and Ghazan may have got it and the *nīshān* that way, but a *paiza* is likeliest, as it was a sort of metallic diplomatic passport and no doubt the ambassadors from Peking all carried them."

The preceding items of Ghāzān's coinage from the Tiflis mint are no novelties, but it has recently been discovered that another mint existed under Ghāzān in Georgian territory, namely at Akhaltsikhe in the province of Samtskhe. Credit for this important addition to Transcaucasian numismatic history belongs to specialists at the University and State Museum of Georgia at Tiflis. As a result of details published in the Museum's bulletin, it has been possible to attribute a coin in the ANS collection to this Akhaltsikhe mint.

26. Dirhem Akhaltsikhe Date effaced

Obv. As preceding example from the Tiflis mint, but the third line reads :

ضرب اخلسيخ

Struck at Akhalsikh.

(or possibly: اخلسيخ)

Rev. As preceding example.

℞ 22 mm. 1.96 gr.

PLATE VI, II.

T'. Lomouri, "Akhaltsikhis zarap'khana," in *Sak'art'velos sakhelmdsip' muzeumis moambe*, XIIB, 1944, p. 214.

¹ On this formula see Mostaert and Cleaves in *Harvard Journal of Asiatic Studies*, XV, 1952, pp. 428 and 486; also Cleaves, in the same journal, XVI 1953, p. 40.

The first mention of Ghāzān's Akhaltsikhe mint is found in Bartholomaei's third letter to Soret, the author of which, however, found himself unable to identify the locality in question, which he read tentatively as "Ikhshin."¹ More recently, an Akhaltsikhe dirhem came to light at Erivan in 1939. Pakhomov read the mint as اخلس, but there can be no reasonable doubt that this represents the name of Akhaltsikhe.² Nearly a score more specimens were then discovered in Soviet Georgia, on one of which, instead of اخلس, the mint reads اخالسخ. This enabled T'amar Lomouri of the Tiflis Museum coin room, in consultation with Professor G. Tseret'eli, to establish beyond doubt that the mint in question is indeed Akhaltsikhe.

The existence of this mint under the Il-Khans is significant as reflecting political developments of the period. The Georgian chronicle records that in 1268 the Atabag of Samtskhe, Sargis Jaqeli, profited by the weakness of King David Ulugh of Georgia to set himself up under Mongol protection as independent dynast at Akhaltsikhe. He was succeeded by his son Bek'a Jaqeli (1285-1306), whose rule thus coincided with the reign of Ghāzān Maḥmūd, in whose name these coins were struck. In the time of Sargis II Jaqeli (1306-34), King Giorgi the Brilliant re-united the province of Samtskhe to the Georgian crown, the dignity of Atabag remaining in the Jaqeli family. After the Ottoman invasion of 1578, the Jaqelis became hereditary Pashas under the suzerainty of the Turkish Sultan.³ Many works of geographical description and travel contain material on Samtskhe and the city of Akhaltsikhe.⁴

¹ "Troisième lettre de M. le Général de Bartholomaei à M. F. Soret, sur des monnaies koufiques inédites, trouvées en Géorgie," in *Rev. Num. Belge*, 1862, p. 68, Pl. III, No. 10.

² E. A. Pakhomov, *Monetnye klady Azerbaydzhana i drugikh respublik, kraev, i oblastey Kavkaza*, fasc. IV, Baku, 1949, No. 1158.

³ M.-F. Brosset, *Histoire de la Géorgie*, I, St. Petersburg, 1849, pp. 543-86; Prince Wakhushht, "Histoire du Samtzhé-Saatabago," in *Histoire de la Géorgie*, II, 1, 1856, pp. 205-6.

⁴ Prince Wakhushht, *Description géographique de la Géorgie*, trans. and ed. Brosset, St. Petersburg, 1842, pp. 85-87; Dubois de Montpéroux, *Voyage autour du Caucase*, II; Platon Ioseliani, *Goroda, sushchestvovavshie i sushchestvuyushchie v Gruzii*, Tiflis, 1850, pp. 28-30; *Materialy po arkheologii Kavkaza*, IV; V. Ivanov, "Gorod Akhaltsikhe," in *Sbornik materialov dlya opisaniya mestnostey i plemen Kavkaza*, VII.

The Akhaltsikhe mint continued to function under the Il-Khan Uljaitu (Öljaitü), who reigned from 1304 to 1316, and was a contemporary of Sargis II Jaqeli. Bartholomaei lists a dirhem of Uljaitu of uncertain date minted at Ikhshin, i.e., Akhaltsikhe.¹ In the catalogue of the von Karabaczek collection, there also occurs a dirhem of Uljaitu struck at Ikhshin/Akhaltsikhe, this time dated A.H. 716/1316–7 A.D.²

So far this is all that is known about this interesting mint, though it may be conjectured that it was one of the centres for the fabrication of imitations of the Trebizond aspers, which became standard currency in western Georgia during the fourteenth and fifteenth centuries, after the decay of the Il-Khanid empire. D. Kapanadze has recently discovered a rather dubious coin on which he reads the initials of the Atabag Qwarqware, who ruled at Akhaltsikhe from 1451 to 1498.³

*Uljaitu (Öljaitü) Khan (1304–16) and Giorgi VI,
The Little (c. 1310–15)*

Sultān Uljaitu ("The Fortunate"), known also as Muḥammad Khudābandeh, succeeded his brother Ghāzān and continued his statesmanlike policies. At first a Sunnī, he later adopted the Shī'a persuasion. He transferred the capital of the empire from Tabriz to Sultāniya.

Giorgi VI of Georgia, known as Mtsire, "The Little," was an infant son of King David VIII. He reigned nominally in Tiflis under the tutelage of his uncle, the former King Giorgi V, later to reign once more as Giorgi the Brilliant.

The coins struck in Georgia by Uljaitu are purely Muslim in legend and style, bearing no Christian symbol to distinguish them from products of other Il-Khanid mints.

¹ *Rev. Num. Belge*, 1862, pp. 68–69.

² Schulman, Amsterdam, November 18th., 1907, p. 67, No. 1133.

³ D. Kapanadze, "Zogiert'i gaurkveveli k'art'uli p'ulis dat'arighebisat'vis," in *Sak'art'velos sakhelmdsip'o muzeumis moambe*, XIB, 1941, p. 150.

27. Dirhem Tiflis A.H. 705/1305-6 A.D.

Obv. Area, within ornamented cinquefoil:

الله

There is no god but Allāh

لا اله الا

ضرب تفليس

Struck at Tiflis

محمد

Muḥammad

رسول الله

is the Messenger of Allāh.

Vertically, at sides:

God bless him.

صلى الله عليه

(The word الله at the top of the area
is read twice).

Margin, in segments between cinquefoil and circumscribed circle, contains names of Four Orthodox Caliphs.

Rev. Area, within double linear square:

السلطان الاعظم

The most mighty Sultān

غياث الدنيا والدين

Ghiyāth al-Dunyā wa'l-Dīn

خدا بنده محمد

Khudābandeh Muḥammad,

خلد الله ملكه

May God perpetuate his reign.

Margin, in segments between square and circumscribed circle, contains date formula: A.H. 705.

R 22 mm. 2.15 gr.

PLATE VI, 12.

28. Dirhems Tiflis A.H. 712/1312-3 A.D.

Obv. Area, within circle:

لا اله الا الله

There is no god but Allāh

محمد	Muḥammad
رسول الله	is the Messenger of Allāh,
على ولي الله	'Alī is the Viceroy of Allāh.

Around:


بسم الله الكريم	In the name of Allāh the All-Bountiful.
-----------------	---

Marginal legend contains benediction on the Twelve Imams.

Rev. Area, within quatrefoil:

ضرب في	Struck in
ايام دولة المولى	the days of the rule of the Lord
السلطان الاعظم مالك رقاب	Sultān most mighty, having sway over the necks
الامم اولجايتو سلطان غياث	of nations, Ūljāitū Sultān Ghiyāth
الدنيا والدين خدابنده محمد	al-Dunyā wa'l-Dīn Khudābandeh Muḥammad,
خلد الله	May God perpetuate
ملكه	his reign.

The margin, in segments between quatrefoil and outer circle, is disposed differently in the two specimens in the ANS collection:

- a) Top right: In Mongol:  Oljeytü Sultan.
 Top left: Qur'ān, XXX, 3.
 Bottom right: Mint formula: Tiflis.
 Bottom left: Date formula (effaced).
- b) Top right: Qur'ān, XXX, 3.
 Top left: Date formula: A.H. 712.
 Bottom right: Mongol title.
 Bottom left: Mint formula: Tiflis.

R 19-21 mm. 2.06-2.11 gr.

PLATE VII, 1-2.

Similar to Fraehn, No. 113 and Lane-Poole, *Coins of the Mongols*, No. 133.

29. Double Dirhem Tiflis A.H. 715/1315-6 A.D.

Obv. Area, within double sixfoil: Shī'a pious formula.

Marginal legend contains benediction on the Twelve Imams.

Rev. Area, within double sevenfoil, contains enumeration of Uljaitu's titles, similar to preceding example.

Margin, in segments between sevenfoil and outer circle, contains mint-date formula: Tiflis, A.H. 715.

R 23 mm. 3.98 gr. (ringed).

PLATE VII, 3.

Similar to Lane-Poole, *Coins of the Mongols*, No. 147.

In addition to the above series, the ANS collection contains a barbarous imitation of a double dirhem of this reign.

30. Double Dirhem (barbarous work) Tiflis A.H. 708 (?) or 710 ?().

Obv. Area, within ornamented hexagon, contains Sunnī pious formula.

In segments between hexagon and linear circle, crudely written legend of which only two sections remain, possibly representing the words:

النبي بنده

... the prophet, slave...

Rev. Area, within ornamented hexagon, barbarously inscribed:

ضرب في ايام

Struck in the days

دولة السلطان الاعظم

of the rule of the Sulṭān most mighty

اولجايتو خدا بنده

Uljāitū Khudābandeh

محمد خلد الله ملكه

Muḥammad, May God perpetuate his reign.

Margin, in segments between hexagon and outer circle:

تفليس / — / ثمان (or عشر) و / سبعة

700 /and (or 10?) 8 / — / Tiflis.

R 24 mm. 3.18 gr.

PLATE VII, 4.

*Abū Saʿīd Bahādur Khan (1316–35) and Giorgi V, The Brilliant
(c. 1315–46)*

Abū Saʿīd, son of Uljaitu, was the last ruler of the undivided Il-Khanid empire. His reign, the swan-song of the Mongols of Persia, was one of courtly splendour and literary culture, combined with growing political unrest. He reverted to the Sunnī persuasion.

In Georgia, the infant Giorgi the Little having died or otherwise disappeared from the scene, the throne was occupied for the second time by Giorgi V, son of Dimitri the Devoted. Giorgi V is called by the annalists “Brdsqinvale,” The Brilliant. At first, he enjoyed high favour at the Persian court and was confirmed in possession of all the Georgian lands. The chronicles give grandiloquent but vague accounts of his military prowess. He is stated to have expelled the Mongols from Georgia and set up his headquarters at Tiflis, as well as re-uniting all western and south-western Georgia to the Crown.¹

The numismatic evidence suggests however that Giorgi’s successes were of a more modest nature. An uninterrupted series of standard Il-Khanid silver coins were struck at Tiflis until the 1350’s. It seems most likely that the Annals’ accounts of Giorgi’s battles with the Mongols represent a somewhat garbled version of the events attending the revolt and defeat of Giorgi’s protector, the powerful general Chūpān, who was executed in 1327. Chūpān’s son Maḥmūd, the Il-Khanid governor of Georgia, was now assassinated by his own troops.² Having been associated with the losing side, Giorgi’s position in Tiflis would have been perilous. The account of his exploits in western Georgia perhaps reflects the fact that like his predecessors Queen Rusudan and David Narin, Giorgi found it advisable to operate for a time outside the Mongol sphere of influence. Or again it may be that the Muslims continued, as in the days of the Tiflis Emirs, to hold the city as an enclave within the kingdom of Kʿartʿli.³

¹ Howorth, *History of the Mongols*, III, 587; Brosset, *Histoire de la Géorgie*, I, 640–48; Allen, *History of the Georgian People*, pp. 121–22.

² Ḥāfiẓ-i Abrū, *Chronique des Rois Mongols en Iran, texte persan édité et traduit par K. Bayani*, II, Paris, 1936, p. 107.

³ Cf. Bartholomaei, *Lettres numismatiques*, pp. 108–9: “Il devient évident que pendant toute la première moitié du XIV^{me} siècle, le joug mongol avait pesé de tout son poids sur la Transcaucasie entière, et que le royaume de Géorgie était devenu de fait une province de l’empire des Houlaguides; que les rois

No coins struck in the name of Giorgi the Brilliant are known to us, with the somewhat dubious exception of a few specimens of crude fabric from a 14th century hoard published by D. Kapanadze. These are apparently imitations of later Il-Khanid patterns, though Kapanadze's reproductions are not good enough to give a clear impression. A feature of their design is a motif resembling a human eye. On one of them Kapanadze made out the legend "Mep'et'a Mep'e Giorgi" in Georgian ecclesiastical majuscules, and concluded that this is the famous "Giorgauli" coin referred to in a number of medieval legal documents.¹ Experience of the many curious items which occur in hoards of this period suggests, however, the need for caution. It is proposed to return to this subject in the section on Georgian imitations of the aspers of Trebizond, which were the standard currency of western Georgia during this period.

The ANS collection contains sixteen silver coins of Abū Saʿīd minted at Tiflis after standard patterns.

31. Double Dirhem Tiflis A.H. 717/1317-8 A.D.

Obv. Area, within ornamented octagon, contains Sunnī pious formula, interspersed with ornaments.

Margin, in spaces between octagon and outer circle, contains Qurʾān, LXVII, 1.

Rev. Area, within ornamented hexagon:

ضرب في	Struck in
دولة المولى السلطان	The empire of the Lord Sulṭān
الاعظم ابو سعيد	Most mighty, Abū Saʿīd,
خلد الله ملكه	May God perpetuate his reign.

de Géorgie, en commençant par Giorgi-le-Brillant lui-même, n'étaient que des vassaux des kašs...." This point is discussed further in Bartholomaei à Soret, III, *Rév. Num. Belge*, 1862, pp. 95-97.

¹ D. Kapanadze, "Zogiert'i gaurkveveli k'art'uli p'ulis dat'arighebisat'vis," in the Tiflis Museum *Moambe*, XIB, 1941, pp. 133-44.

Beneath, arabesque.

Margin contains mint-date formula: Tiflis, A.H. 717.

℞ 26 mm. 3.74 gr. (holed)

PLATE VII, 5.

Similar to Lane-Poole, *Coins of the Mongols*, No. 175.

32. Dirhem Tiflis A.H. 719/1319-20 A.D.

Obv. Area, within ornamental frame portraying a *mihrāb*, contains Sunnī pious formula. Beneath, names of the Four Orthodox Caliphs. The *mihrāb* frame itself and the legend between the frame and surrounding linear border form Qur'ān, II, 131.¹

Rev. Area, within lobed square:

ضرب	Struck
في أيام دولة السلطان	in the days of the rule of the Sulṭān
الاعظم أبو سعيد	Most mighty, Abū Sa'īd,
خلد الله ملكه	May God perpetuate his reign.

Around, in lobes of square:

نعم النصر من الله	Excellent is the victory from God.
-------------------	------------------------------------

Margin, in spaces between square and outer circle, contains mint-date formula: Tiflis, A.H. 719.

℞ 20 mm. 1.70 gr.

PLATE VII, 6.

Similar to Fraehn, No. 140; Lane-Poole, *Coins of the Mongols*, Nos. 176-96.

33. Double Dirhems Tiflis A.H. 719/1319-20.

Three specimens in ANS collection.

Design as previous example.

℞ 24-26 mm. 3.12-3.38 gr.

PLATE VII, 7-8.

¹ On this design and its symbolism, see George C. Miles, "Epitaphs from an Isfahan graveyard," in *Ars Islamica*, 1939, p. 156.

34. Double Dirhems Tiflis A.H. 722 and 723/1322-3 A.D.

Obv. Area, within circle, contains Sunnī pious formula, with the names of the Four Orthodox Caliphs inscribed around. Between first and second, and second and third lines of pious formula:

ضرب Struck at

تفليس Tiflis.

Rev. Area, within pentagon:

في ام (sic) In the days

ضرب Struck

يام دولة السلطان الاعظم Of the rule of the Sultān most mighty,

ابو سعيد بهادر خان Abū Saʿīd Bahādur Khan,

خلد الله ملكه May God perpetuate his reign.

Margin, in segments between pentagon and outer circle, contains date formula: A.H. 722 and 723.

℞ 22 mm. 2.44-3.37 gr.

PLATE VII, 9.

Similar to Lane-Poole, *Coins of the Mongols*, Nos. 197-209.

35. Dirhem Tiflis A.H. 722.

Similar to preceding example.

℞ 19 mm. 1.34 gr. (holed).

36. Double Dirhems Tiflis A.H. 724 and 725/1323-5 A.D.

Obv. Area, within double square, contains Sunnī pious formula.

Margin, in segments between square and outer circle, contains names of the Four Orthodox Caliphs.

Rev. Area, within double circle:

ضرب Struck

السلطان ابو سعيد Sultān Abū Saʿīd

بہادر خان خلد ملکہ

Bahādur Khan, May his reign be
perpetuated,

تفلیس

Tiflis.

Margin, between circle and outer circle, contains date formula: A.H. 724
and 725.

℞ 23 mm. 3.26–3.37 gr.

PLATE VIII, 1.

Similar to Lane-Poole, *Coins of the Mongols*, Nos. 210–16.

37. Dirhem Tiflis A.H. 724

Similar to preceding example.

℞ 17 mm. 1.93 gr.

PLATE VIII, 2.

38. Double Dirhems Tiflis A.H. 729/1328–9 A.D.

Obv. Area, within ornamented octagon, contains Sunnī pious formula,
surrounded by the names of the Four Orthodox Caliphs. Linear circle
border, with loops.

Rev. Area, within ornamented and looped octagon:

السلطان الاعظم

Sulṭān most mighty

ابو سعید بہادر خان

Abū Saʿīd Bahādur Khan

خلد الله ملکہ

May God perpetuate his reign.

Margin, between octagon and outer circle, contains mint-date formula:
Tiflis, A.H. 729.

℞ 23–24 mm. 3.14–3.18 gr.

PLATE VIII, 3.

39. Double Dirhems Tiflis Year 33 al-Khānīyeh, i.e. 1334–35 A.D.
Year 3* (33 or 34) al-Khānīyeh.

Obv. Sunnī pious formula in Cufic characters arranged to form a square,
and embodying the phrase:

صلی الله علیہ

God bless him.

Round the Cufic inscription, in ordinary Naskhi characters, are in-
scribed the names of the Four Orthodox Caliphs.

Rev.

السلطان العالم العادل

The Sultān wise and just

ضرب

Struck

وہمہنکم

Busayid

تفلیس

At Tiflis

بہادر خان خلد ملکہ

Bahādur Khan, May his reign be
perpetuated.

Round the inscription, date formula: In one specimen 33, in the other 3*,
of the Il-Khanid era.

℞ 19-20 mm. 2.77-2.85 gr.

PLATE VIII, 4-5.

Similar to Lane-Poole, *Coins of the Mongols*, Nos. 173, 238-51.

40. Dirhem Tiflis Year 33 al-Khanīyeh, i.e. 1334-35 A.D.

Similar to preceding.

℞ 15 mm. 1.38 gr.

PLATE VIII, 6.

An attempt must be made here to clarify the concordance of the Khanid and Christian eras, which has been a source of some difficulty in dating these coins of the last years of Abū Sa'īd, the only ruler to employ the Khanian era on his coins. Fraehn and Lane-Poole equate the 33rd year of this Khanian era, invented by Ghāzān Maḥmūd, with 1332-33 A.D.¹ This computation seems untenable, for the authorities agree, with one exception, that Ghāzān based his era on the solar cycle and introduced it on the 12th of Rajab, A.H. 701, or March 13th, 1302.² Now if the first year of the Khanian era ran from March, 1302 to March, 1303, the 33rd year must surely have begun in March,

¹ Fraehn, *De Il-Chanorum numis*, p. 528; Lane-Poole, *Coins of the Mongols*, p. 63.

² See W. Hinz, in *ZDMG*, 1951, p. 250; also Hammer-Purgstall, *Geschichte der Ilchane*, II, Darmstadt, 1843, pp. 175-76, 357-59; Howorth, *History of the Mongols*, III, pp. 532-33; E. G. Browne, *Literary History of Persia*, III, Cambridge, 1928, p. 45; F. K. Ginzel, *Handbuch der Mathematischen und Technischen Chronologie*, I, Leipzig, 1906, pp. 304-5. Waṣṣāf, the continuator of Rashīd al-Dīn, dissents however, giving the 1st of Rajab, A.H. 700 as the commencing date.

5 Lang

1334 and ended in March, 1335 (A.H. 734–35). This is borne out by modern Persian almanacs, which give, for example, Khānī 634 as the equivalent of A.D. 1935.¹

To turn to the numismatic evidence, we find further support for this system of calculation in some coins of Abū Saʿīd minted at Baghdad, al-Ḥillah and Wāsiṭ, and first published by Codrington, bearing dates in both the Khanian and Muslim eras. In three examples, the date is inscribed as both year 34 al-Khānīyeh and 735 A.H. (September, 1334 to August, 1335).²

Zambaur lists some coins of Abū Saʿīd dated 35 and even 36 of the Khanian era.³ These, if our calculations are correct, would date from the years 1336–38 A.D. and represent posthumous issues. Abū Saʿīd died in November, 1335.

It is worth noting that the era is styled الخانية, “al-Khānīyeh,” and not ابلخانية, “Ilkhānīeh,” as sometimes given.

The ANS collection also contains a double dirhem of unusual type struck at Tiflis under Abū Saʿīd. It is of the square-cufic pattern, but without the Il-Khan’s name in Mongol. Nor is any space allotted for a date-formula. So far as can be discovered, this is a unique specimen.

41. Double Dirhem Tiflis N.D.

Obv. Sunnī pious formula in Cufic characters, surrounded by the names of the Four Orthodox Caliphs.

Linear circle border, outer border of dots.

Rev.

ضرب

Struck

السلطان الاعظم

The Sulṭān most mighty,

¹ S. H. Taqizadeh, “Various eras and calendars used in the countries of Islam,” part 2, in *Bulletin of the School of Oriental and African Studies*, X, London, 1939, pp. 118–20. The correspondence 137 Khānī = A. H. 842/1438–39 A.D. is given in a document of the Timurid Shah-Rukh (W. Hinz, in *Der Islam*, 1949, p. 118).

² O. Codrington, *Some rare and unedited Arabic and Persian coins*, Hertford, 1889, p. 4. Two examples with this double date-formula, from Baghdad and Wāsiṭ, are also in the ANS collection.

³ E. von Zambaur, “Nouvelles contributions à la numismatique orientale,” in *Numismatische Zeitschrift*, 1914, p. 184.

أبو سعيد بهادر خان	Abū Saʿīd Bahādur Khan
خلد الله ملكه	May God perpetuate his reign
تفليس	Tiflis.

Double linear circle, outer border of dots.

R 22 mm. 2.71 gr.

PLATE VIII, 7.

The Last Il-Khans (1335-1357)
and Giorgi V and David IX (1346-60)

After the death of Abū Saʿīd, "the throne of Persia became the toadstool on which the puppet sovereigns set up by rival ameers seated themselves, only to find it crumbling beneath them."¹ The Georgian chronicles pass over this troubled era in virtual silence. It is noteworthy that in spite of the prevailing chaos, the Il-Khanid mint at Tiflis continued to function regularly, as well as a new one at Qarā-Aghāch in Kakhet'i, on Georgia's south-eastern border.

Abū Saʿīd's immediate successor was Arpā Khan, who reigned for only a few months.

42. Double Dirhem Tiflis A.H. 736/1335-6 A.D.

Obv. Sunnī pious formula in Cufic characters, surrounded by the names of the Four Orthodox Caliphs, the whole design being virtually identical with the coins of Abū Saʿīd's last period.

Rev. السلطان الاعظم	The Sultān most mighty
اربا خان خلد الله	Arpā Khan; may God perpetuate
ملكه وايد دولته	his reign and reinforce his dominion.

¹ Lane-Poole, *Coins of the Mongols*, p. xx. The best account of the period is found in the *Ta'rikh-i Shaikh Uwais*, trans. and edit. J. B. van Loon (The Hague, 1954), and prefaced by an excellent historical summary.

Surrounded by mint-date formula: Tiflis, A.H. 736.

Æ 21 mm. 2.78 gr.

PLATE VIII, 8.

Fraehn, No. 207; Pakhomov, *Monetnye Klady*, fasc. IV, Baku, 1949, p. 50, No. 1157.

The next of these ephemeral rulers represented in the Tiflis series is Muḥammad Khan, who reigned under the aegis of Shaykh Ḥasan Buzurg, the Jalā'ir chieftain. He was little more than a figurehead, and was killed in 1338, when the Chūpānī, Ḥasan Kūchuk, conquered Azerbaijan and Georgia.¹

43. Double Dirhem Tiflis A.H. 738/1337-8 A.D.

Obv. Within curved border, Sunnī pious formula, surrounded by the names of the Four Orthodox Caliphs.

Rev. Within curved and looped border:

السلطان العالم

The Sultān wise

محمد خلد الله

Muḥammad; may God perpetuate

ملكه ودولته

his reign and dominion.

Around, mint-date formula: Tiflis, A.H. 738.

Æ 20 mm. 2.35 gr.

PLATE VIII, 9.

Similar to Lane-Poole, *Coins of the Mongols*, No. 280.

It is useful for Georgian history to note that the other contemporary rival dynasts Mūsā, Tughā-Tīmūr and Jāhān-Tīmūr never apparently had control of the Tiflis mint. Abū Sa'īd's sister, the Princess Sātī Beg, struck silver at Tiflis in A.H. 739,² but none of her coins from here are in the ANS collection.

The next of the rival puppet Khans represented in our series is Sulaymān, who married Sātī Beg and ruled under the protection of Ḥasan Kūchuk, the Chūpānī, from 1339 until 1343, when Ḥasan was murdered by his own wife.³ Melik Ashraf, brother of Ḥasan Chūpānī,

¹ Ḥāfiẓ-i Abrū, trans. Bayani, II, 131.

² Barataev, *Num. fakty*, section I, p. 5; Markov, *Inventarny Katalog*, p. 591, No. 504.

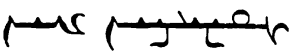
³ Howorth, *History of the Mongols*, III, pp. 646-50.

had rebelled against the latter, fled to Georgia and, on Ḥasan's assassination, now assumed power, appointing one of his partisans to be governor of Georgia.¹

44. Dirhem Tiflis A.H. 741/1340-41 A.D.

Obv. Within eightfoil, Sunni pious formula, surrounded by the names of the Four Orthodox Caliphs.

Rev. Area, within eightfoil:

السلطان	The Sultān
	Suleiman Khan
خلد ملكه	May his reign be perpetuated.

Margin, between eightfoil and linear circle border, contains mint-date formula: Tiflis, A.H. 741.

R 17 mm. 1.30 gr. (holed)

PLATE VIII, 10.

Similar to Lane-Poole, *Coins of the Mongols*, No. 330. The ANS collection has another dirhem of Sulaymān, dated A.H. 741, but of doubtful mint, possibly Tiflis (similar to Lane-Poole's No. 320).

The epigraphy, especially on the reverse, shows signs of debasement.

The last of the decayed Il-Khans was Anūshirvān, or Nūshirvān (1344-1357), a figurehead ruler of dubious pedigree set up at Tabriz by the tyrant Ashraf Chūpānī. His reign was brought to an abrupt conclusion by the invasion of Jānī-Beg of the Golden Horde in 1357. His silver coinage shows progressive signs of degeneration.

45. Dirhems Tiflis A.H. 750 and 751/1349-51 A.D.

Obv. Area, within border design portraying a *mihrāb*, contains Sunni pious formula.² Around border, names and titles of the Four Orthodox Caliphs, partly effaced.

¹ Ḥāfiẓ-i Abrū, trans. Bayani, II, 136, 148.

² A similar motif has already been noted as occurring on the coinage of Abū Sa'īd about the year 719 A.H. (see Nos. 32 and 33, above).

Rev. Area, within hexagonal border:

ضرب	Struck
السلطان العادل	The Sultān the just
نوشروان	Nūshirvān
خلد الله ملكه	May God perpetuate his reign.

Margin, in six compartments, contains mint-date formula: Tiflis, A.H. 750 and 751.

Æ 17-18 mm. 1.46-1.49 gr.

PLATES VIII, II and IX, 1.

46. Dirhem Tiflis A.H. 75*.

Obv. Area, within linear circle, contains Sunnī pious formula, surrounded by the names of the Four Orthodox Caliphs.

Rev. Area, within hexagonal ornamented border:

ضرب	Struck
السلطان	The Sultān
انوشروان	Anūshirvān,
خلد ملكه	May his reign be perpetuated,
تفليس	Tiflis.

Margin, in six compartments, contains the date formula: A.H. 75*.

Æ 16 mm. 1.20 gr.

PLATE IX, 2.

47. Dirhem Tiflis A.H. 7 (c. 753).**

Obv. Area contains Sunnī pious formula in Cufic characters disposed in a square. Around, the names of the Four Orthodox Caliphs.

Rev. Area, within ornamented hexagon:

ضرب	Struck
نوشروان	Nushirvan

تفليس

Tiflis

خلد ملکہ

May his reign be perpetuated.

Four small stars arranged in pattern in area.

Margin contains date formula: A.H. 7**.

R 14 mm. 1.01 gr.

PLATE IX, 3.

The ANS has on loan from the University Museum in Philadelphia a dirhem of the same design and virtually the same weight (1.03 gr.), dated Tabriz, A.H. 753/1352-3 A.D. It is safe to conclude therefore that the above specimen from the Tiflis mint dates from about this year.

This concludes the series of Il-Khanid Tiflis coins in the ANS collection.

Besides Tiflis, however, the last Il-Khans operated another mint in Georgia, namely at Qarā-Aghāch, or "Black Wood" in Kakhet'i on the country's south-eastern marchlands. The town is known in Georgian sources as Qaraghaji.

Our study is complicated by the fact that at different periods, the Mongols of Persia had mints in two separate and distinct localities of this name. Under Uljaitu, in A.H. 711 and 713/1311-14 A.D., Anatolian-type silver coins occur with the mint-mark قراغاج. This can hardly be the Georgian Qarā-Aghāch: the specimen in the ANS collection was found in a hoard of silver coins of Uljaitu, mostly minted at 'Alā'yah on the Mediterranean coast of Anatolia.¹ The coin in question from Qarā-Aghāch bears, like the other specimens in the hoard, a Qaramānid counterstamp.² This must surely be the Qarā-Aghāch mentioned by Ibn Baṭūṭa in his travels in Asia Minor, as being in the neighbourhood of Qul Ḥiṣār.³ It is doubtless the "Qarā-Aghāch of Yalvāch" listed by Mostras.⁴

¹ Cf. G. Le Strange, *The Lands of the Eastern Caliphate*, Cambridge, 1930, pp. 150-51.

² The other recorded coin of Uljaitu from this Qarā-Aghāch, dated A.H. 711, is listed in Lane-Poole, *Coins of the Mongols*, No. 146.

³ Ibn Baṭūṭa, ed. Defrémery and Sanguinetti, II, 270. Cf. Fraehn, in another context: "... Moneta Kara-aghatschae (quod haud scio an oppidum Karamanae sit)" (*De Il-Chanorum numis*, p. 535).

⁴ C. Mostras, *Dictionnaire géographique de l'Empire Ottoman*, St. Petersburg, 1873, p. 136; V. Cuinet, *La Turquie d'Asie*, III, Paris, 1894, pp. 639-42.

The next numismatic mention of Qarā-Aghāch occurs a quarter of a century later, when the Il-Khanid empire was already breaking up. Several dirhems of Muḥammad Khan, the nominee of Shaykh Ḥasan Buzurg, minted at Qarā-Aghāch in A.H. 738/1337–8 A.D., have been recorded.¹ In 740 A.H., Sulaymān, the creature of Ḥasan Kūchuk, was minting there.² Under Anushirvān, there occur a whole series of various types and dates, including four in the ANS collection, described below.³

Several considerations make it impossible for this Qarā-Aghāch to be identical with Uljaitu's mint-town of this name in south-western Asia Minor. From what is known of the troubled history of the period, it would be most surprising for Muḥammad, Sulaymān or Anūshirvān Khan to be in a position to claim even the most shadowy suzerainty over the Qaramānid dominions.

General Bartholomaei was of the opinion that this Qarā-Aghāch should be sought rather in the region of Shīrvān, where a substantial number of the later Il-Khanid mints are situated.⁴ Recent discoveries have borne out this view. In 1949, E. A. Pakhomov published details of a hoard found in 1940 at Qaraghaji in the Dsit'eldsqaro, or "Red-Spring" district of Kakhet'i, in the south-eastern corner of the Georgian Soviet Republic, and close to the historic boundaries of Shirvan. This hoard was made up of dirhems of Sulaymān and Anūshirvān minted at Qarā-Aghāch (Qaraghaji) itself, as well as at Tiflis, Tabriz, Sulṭāniya, Ardabil, Marāgha, Ganja, Shīrvān, etc., in other words, from centers in Transcaucasia and north-west Persia.⁵ It is worth noting also that a similar hoard, found near Kars in Turkish Georgia in 1877, contained coins of Anūshirvān minted at Qarā-Aghāch, Tiflis, Ganja, Nakhchevan, etc., that is to say, again from towns in Transcaucasia.⁶ This should be enough to demonstrate that the second Qarā-Aghāch mint is indeed the Georgian Qaraghaji.

¹ Fraehn, No. 210; Bartholomaei à Soret, IV, *Rev. Num. Belge*, 1864, p. 314, No. 75; Markov, *Inventarny Katalog*, Supplement 4, p. 1036, No. 482a.

² Bartholomaei à Soret, IV, *Rev. Num. Belge*, 1864, p. 318, No. 97*.

³ See also Markov, *Inventarny Katalog*, p. 593, No. 547, p. 596, No. 643, Supplement 4, p. 1038, No. 652h.

⁴ Bartholomaei à Soret, III, *Rev. Num. Belge*, 1862, p. 90.

⁵ Pakhomov, *Monetnye klady*, fasc. IV, Baku, 1949, pp. 50–51, No. 1160.

⁶ Pakhomov, *Monetnye klady*, fasc. III, Baku, 1940, p. 51, No. 863.

This place is well known to Georgian historical geography. Prince Wakhusht, writing in the eighteenth century, stated that it had been ravaged by the Golden Horde leader Bārākā (Berke) in 1265–66, which shows that it already existed as a township in the Mongol period.¹ It was in the district of K'isiq, between the Alazan and Iori rivers, which indeed corresponds to the present-day administrative district of Dsit'eldsqaro. In the seventeenth century, it became the administrative capital of Kakhet'i under the Šafavīs. The Shahs' vice-roys resided there from 1657 until the end of the century and one of them built a palace in the Persian style. From 1703, King David III (Imām-Qūlī-Khān) of Kakhet'i resided at Qaraghaji, until he removed his capital to T'elavi in 1706. Ottoman occupation troops built a fortress there in 1733.² The development of the town and fortress of Sighnaghi in a less vulnerable area of K'isiq during the latter half of the eighteenth century hastened Qaraghaji's decline to its present-day insignificance.

48. Dirhem Qarā-Aghāch A.H. 746/1345–6 A.D.

Obv. Sunnī pious formula arranged to form a triangle. Within triangle, in the centre, the name of 'Alī is inscribed, surrounded by the names of the other three Orthodox Caliphs. Outside the triangle, the formula:

	بسم الله الكريم	In the name of Allāh the All-Bountiful.
Rev.	السلطان	The Sultān
	نصير الحكيم	Nushirvan Khan
	خلد ملكه	May his reign be perpetuated.

Around, mint-date formula: Qarā-Aghāch, A.H. 746.

R 18 mm. 1.41 gr.

PLATE IX, 4.

Type of Fraehn, Pl. II, No. 232.

¹ Wakhusht, *Description géographique de la Géorgie*, ed. Brosset, St. Petersburg, 1842, p. 309. See also Rashīd al-Dīn, *Sbornik Letopisey*, trans. Arends, III, 1946, p. 68.

² Prince Wakhusht, "Histoire du Cakheth," in M.-F. Brosset, *Histoire de la Géorgie*, II, 1, St. Petersburg, 1856, pp. 173–93; V. Minorsky, *Tadhkirat al-Mulūk*, London, 1943, pp. 102, 167; Platon Ioseliani, *Goroda, sushchestvovavshie i sushchestvuyushchie v Gruzii*, Tiflis, 1850, p. 49.

49. Dirhem Qarā-Aghāch A.H. 74*.

Obv. Area contains Sunnī pious formula inscribed diagonally within lozenge. In segments between lozenge and outer circle, names of the Four Orthodox Caliphs.

Rev. Area, inscribed diagonally within ornamented lozenge:

السلطان العادل

The Sultān the just

انوشروان

Anūshirvān

خلد ملكه

May his reign be perpetuated.

Around lozenge, mint-date formula: Qarā-Aghāch, A.H. 74*.

℞ 20 mm. 1.47 gr. (holed).

PLATE IX, 5.

Bartholomaei à Soret, IV, *Rev. Num. Belge*, 1864, No. 142*.

50. Dirhem Qarā-Aghāch A.H. 750/1349-50 A.D.

Obv. Area, within square, contains Sunnī pious formula. Margin, in segments between square and linear circle, contains names of the Four Orthodox Caliphs.

Rev. Area, within oval:

السلطان

The Sultān

نوشیروان

Nushirvan

خلد ملكه

May his reign be perpetuated.

Above and below oval, mint-date formula: Qarā-Aghāch, A.H. 750.

℞ 16 mm. 1.26 gr.

PLATE IX, 6.

Bartholomaei à Soret, II, *Rev. Num. Belge*, 1861, No. *48.

51. Dirhem Qarā-Aghāch A.H. 75*.

Obv. Sunnī pious formula, surrounded by the names of the Four Orthodox Caliphs.

Rev. Area, within hexagon:

السلطان

The Sultān

ضرب	Struck
انوشروان	Anūshirvān
قرا اغاچ	Qarā-Aghāch
خلد ملکه	May his reign be perpetuated.

In segments between hexagon and outer circle, date formula: A.H. 75*.

Æ 16 mm. 1.18 gr.

PLATE IX, 7.

Georgia and the Jalā'irids (1357-1410)

The most powerful of the minor dynasties which carved up the disrupted Il-Khanid empire was that of the Jalā'irs, the descendants of Shaykh Ḥasan Buzurg. These princes made Baghdad their capital, but gained control over much of Persia and Transcaucasia.

For a short time after the suppression of Anūshirvān, the mints at Tiflis and at Qarā-Aghāch were under Jalā'irid control. Dirhems struck in the name of Shaykh Ḥasan, and, apparently anonymously, by his successor Uwais were minted in both places in A.H. 757-8/1356-7 A.D.¹

Another discovery of much interest for Georgian history during this turbulent period is that coins of the Golden Horde were also minted at Qarā-Aghāch in A.H. 758/1357 A.D. Azerbaijan had been invaded in 1357 by Jānī-Beg, Khan of the Golden Horde, who seized Tabriz and executed Anūshirvān's patron, the tyrant Ashraf Chūpānī. Jānī died or was murdered in 1357 by his son and successor Birdī-Beg, who soon after retired to the Qipchaq. Tabriz was then captured by the Jalā'ir Uwais.² That Georgia also was involved in this complicated struggle for power is shown by this fresh numismatic

¹ E. A. Pakhomov, *Klady Azerbaydzhana i drugikh respublik i kraev Kavkaza*, fasc. II, Baku, 1938, Nos. 472-73; Bartholomaei à Soret, II, *Rev. Num. Belge*, 1861, No. *60; A. K. Markov, *Katalog Dzhelairidskikh monet*, St. Petersburg, 1897, p. LII. For a general survey, see further H. L. Rabino, "Coins of the Jalā'ir, Kara Koyunlu, Musha'sha', and Ak Koyunlu dynasties," in *Numismatic Chronicle*, 1950.

² See V. Minorsky, article "Tabriz," in the *Encyclopaedia of Islām*.

evidence. The existence of these Qarā-Aghāch coins of A.H. 758, struck in the names of both Jānī-Beg and Birdī-Beg, was first made known by E. A. Pakhomov.¹ It is important to know that part at least of eastern Georgia was brought at this period, however briefly, under the authority of the Golden Horde.

These Tatar invasions help to explain why no coins have come to light bearing the name of the Georgian king David IX (1346–60), the successor of Giorgi the Brilliant. Nor have any been discovered that can be attributed with any confidence to Bagrat V (1360–93).

With regard to Giorgi VII (1393–1407), the doughty adversary of Tamerlane, the numismatic picture is confused. Three small silver pieces published by Langlois were attributed by him, partly on the strength of information supplied to him by Bartholomaei, to Giorgi VII assertedly reigning jointly with and under the aegis of Shaykh Aḥmad Jalā'ir (1382–1410).² This ascription has since been tacitly accepted by some later writers.³ Yet examination of Langlois' illustrations is enough to arouse misgivings. For one thing, the inscription which he read as the name and title of King Giorgi VII in Georgian characters is unmistakably the Sunnī pious formula. A. K. Markov, when preparing his standard history of the Jalā'irid coinage, sent to the Cabinet des Médailles at the Bibliothèque Nationale, where these coins are preserved, for a fresh report on them. It transpired that their inscriptions contain no mention whatever of any King Giorgi, the only ruler mentioned being a certain Aḥmad. Comparison with known issues of Aḥmad Jalā'ir even led Markov to question whether the specimens in question were of Jalā'irid type at all, or belonged to some other Aḥmad.⁴ However this latter point

¹ Pakhomov, *Klady Azerbaydzhana*, fasc. II, Baku, 1938, No. 472. In the same hoard were found coins of Jānī and Birdī-Beg, also dated A.H. 758, from Barda'a, Tabriz, Ganja, Nakhchevan, etc.

² V. Langlois, "Supplément à l'essai de classification des suites monétaires de la Géorgie," in *Rev. Num. Belge*, 1861, Nos. 9–11.

³ E.g. E. A. Pakhomov, "Kak otrazhalis' istoricheskie sobytiya na monete Gruzii," in *Letopis' Gruzii*, ed. B. Esadze, Tiflis, 1913, p. 57; Pakhomov, *Klady Azerbaydzhana*, fasc. II, p. 46; D. Kapanadze, "XV saukunis k'art'uli p'ulis Goris gandzi," in the Tiflis Museum *Moambe*, XB, 1940, p. 302.

⁴ A. K. Markov, *Katalog Dzhelairidskikh monet*, St. Petersburg, 1897, pp. LXIX–LXX. Personal examination of these coins in Paris bears out Markov's view.

may be, it is clear that these coins cannot be admitted into the Georgian monetary series.

Summary of the Mongol Period

The following tables have been drawn up to illustrate the numismatic history of Georgia during the Mongol Great Khan, Il-Khan, Jalā'irid and Golden Horde dominations. The list is not confined to the specimens from the ANS collection described in detail in the preceding pages. Use has been made of the card-index of Il-Khanid coinage compiled from various sources by Dr. G. C. Miles, as well as recent Soviet publications, which have for the most part been quoted already in footnotes.

MINT	DATE	TYPES
<i>Akhaltzikhe</i>	A.H. 694-703	Il-Khanid: Ghāzān.
	716	Il-Khanid: Uljaitu.
<i>Dmanisi</i>	642	Georgian vassal: David Narin.
<i>Qarā-Aghāch</i>	738	Il-Khanid: Muḥammad.
	740	Il-Khanid: Sulaymān.
	741	Il-Khanid: Sulaymān.
	745	Il-Khanid: Anūshirvān.
	746	Il-Khanid: Anūshirvān.
	748	Il-Khanid: Anūshirvān.
	750	Il-Khanid: Anūshirvān.
	752	Il-Khanid: Anūshirvān.
	753	Il-Khanid: Anūshirvān.
	756	Il-Khanid: Anūshirvān.
	757	Jalā'irid: Shaykh Ḥasan Buzurg.
	758	Jalā'irid: ? Anon.
<i>Tiflis</i>		Jujid, Golden Horde: Jānī-Beg.
		Jujid, Golden Horde: Birdī-Beg.
	642	Great Khan: Queen-Regent Turakina.
	645 (467	of the Georgian Paschal Cycle, 1247 A.D.) Georgian vassals: David Narin, David Ulugh.

Tiflis

647	Georgian vassal: David Narin
650	Great Khan: Mangu
	Georgian vassals: David Narin, David Ulugh.
651	Great Khan: Mangu
	Georgian vassal: David Ulugh.
652	Great Khan: Mangu
	Georgian vassal: David Ulugh.
653	Great Khan: Mangu.
654	Great Khan: Mangu
	Georgian vassal: David Ulugh.
655	Great Khan: Mangu.
656	Great Khan: Mangu.
657	Great Khan: Mangu.
658	Great Khan: Mangu.
659	Great Khan: Mangu.
660	Anonymous (Hulagu): "Kaanniki I."
661	Anonymous (Hulagu): "Kaanniki I."
662	Anonymous (Hulagu): "Kaanniki I."
663	Anonymous (Abagha): "Kaanniki II."
665	Anonymous (Abagha): "Kaanniki II."
666	Anonymous (Abagha): "Kaanniki II."
667	Anonymous (Abagha): "Kaanniki II."
668	Anonymous (Abagha): "Kaanniki II."
669	Anonymous (Abagha): "Kaanniki II."
670	Anonymous (Abagha): "Kaanniki II."
671	Anonymous (Abagha): "Kaanniki II."
672	Anonymous (Abagha): "Kaanniki II."
673	Anonymous (Abagha): "Kaanniki II."
674	Anonymous (Abagha): "Kaanniki II."
675	Anonymous (Abagha): "Kaanniki II."
676	Anonymous (Abagha): "Kaanniki II."
677	Anonymous (Abagha): "Kaanniki II."
678	Hulaguid-Christian: Abagha and Dimitri
	Anonymous (Abagha): "Kaanniki II."
680	Hulaguid-Christian: Abagha and Dimitri

Tiflis

- Anonymous (Abagha): "Kaanniki II."
- 681 Hulaguid-Christian: Abagha and Dimitri.
 682 Hulaguid-Christian: Aḥmad and Dimitri.
 683 Hulaguid-Christian: Aḥmad and Dimitri.
 Hulaguid-Christian: Arghun and Dimitri.
 684 Hulaguid-Christian: Arghun and Dimitri.
 685 Hulaguid-Christian: Arghun and Dimitri.
 686 Hulaguid-Christian: Arghun and Dimitri.
 686 Hulaguid-Christian: Arghun and Dimitri.
 687 Hulaguid-Christian: Arghun and Dimitri.
 688 Hulaguid-Christian: Arghun and Dimitri.
- N.D. (c. 691-4) Hulaguid-Christian: Gaikhatu and
 David VIII.
- 696 Hulaguid-Christian: Ghāzān and
 David VIII.
- 701 Il-Khanid standard series: Ghāzān.
- N.D. (c. 701-3) Hulaguid-Christian: Ghāzān and
 Wakhtang III.
- 705 Il-Khanid: Uljaitu.
 708 Il-Khanid: Uljaitu.
 710 Il-Khanid: Uljaitu.
 711 Il-Khanid: Uljaitu.
 712 Il-Khanid: Uljaitu.
 714 Il-Khanid: Uljaitu.
 715 Il-Khanid: Uljaitu.
 717 Il-Khanid: Abū Saʿīd.
 719 Il-Khanid: Abū Saʿīd.
 722 Il-Khanid: Abū Saʿīd.
 723 Il-Khanid: Abū Saʿīd.
 724 Il-Khanid: Abū Saʿīd.
 725 Il-Khanid: Abū Saʿīd.
 726 Il-Khanid: Abū Saʿīd.
 727 Il-Khanid: Abū Saʿīd.
 728 Il-Khanid: Abū Saʿīd.
 729 Il-Khanid: Abū Saʿīd.
 730 Il-Khanid: Abū Saʿīd.

<i>Tiflis</i>	732	Il-Khanid: Abū Saʿīd.
Year 33		
al-Khāniyeh:	734-5	Il-Khanid: Abū Saʿīd.
	736	Il-Khanid: Arpā.
	738	Il-Khanid: Muḥammad.
	739	Il-Khanid: Princess Sātī-Beg.
	740	Il-Khanid: Sulaymān.
	741	Il-Khanid: Sulaymān.
	745	Il-Khanid: Anūshirvān.
	746	Il-Khanid: Anūshirvān.
	747	Il-Khanid: Anūshirvān.
	750	Il-Khanid: Anūshirvān.
	751	Il-Khanid: Anūshirvān.
	752	Il-Khanid: Anūshirvān.
	757	Jalāʾirid: ? Anon.
	758	Jalāʾirid: Shaykh Ḥasan Buzurg.

VI. GEORGIA AND THE EMPIRE OF TREBIZOND

While the Il-Khans held Eastern Georgia in subjection, David Narin and his posterity maintained a precarious independence as monarchs of Imeret'i, "the land on the far side" of the Likhi Hills which divide eastern from western Georgia. Their realm soon began to break up, the princes of Mingrelia, Guria and Abkhazia giving reign to their separatist ambitions. About 1330, Giorgi the Brilliant brought western Georgia under his authority. Particularist trends again triumphed after the death of Alexander I (1412-43), the last king of united Georgia. The country remained divided until the Russian annexation early in the nineteenth century.

To the southwest, Georgia bordered at this period on the Empire of Trebizond. The Comneni had set themselves up there with the aid of the Georgian Queen T'amar after the fall of Constantinople to the Latins in 1204. Community of faith and interest resulted in the maintenance of close economic and political links between Georgia and Trebizond throughout the two and a half centuries of the Empire's existence. Relations were further cemented by marriages between the Comnenian and Bagratid royal houses.

The first monetary series of Trebizond dates from the reign of John I (1235-38). Under his successor Kyr Manuel I (1238-63), the characteristic type of Trapezuntine silver coinage, the asper, took on definitive form and became well-known and popular in commerce.¹ Authentic aspers are often encountered in hoards dug up in Georgia.²

The Georgians were hemmed in by the Mongols to east and south and obliged to coin and employ in their transactions the money of their overlords. As a reaction from this state of affairs, it was natural

¹ W. Wroth, *Catalogue of the Coins of the Vandals, Ostrogoths and Lombards and of the Empires of Thessalonica, Nicaea and Trebizond in the British Museum*, London, 1911, p. lxxviii.

² T. Lomouri, "P'uli Shot'a Rust'avelis epok'ashi," in *Shot'a Rust'avelis epok'is materialuri kultura*, ed. I Javakhishvili, Tiflis, 1938, p. 302. A number of instances will be found in the four fascicules of Pakhomov's *Monetnye klady*.

that the Christian iconography of the Trapezuntine asper, with its effigy of the Emperor on one side and Saint Eugenius, patron of Trebizond, on the other, should have made a special appeal to the hard-pressed Georgian population.

Georgian imitations of the asper of John II (1280–97) form an abundant and curious group. Although certain crudely struck aspers of the earlier period have been ascribed to Georgian mints,¹ it was not until this reign that the systematic fabrication of these imitations began in Georgia. It is worth noting in this connection that the throne of Trebizond was seized for a few months in 1285 by Theodora, daughter of Kyr Manuel I by his consort, the Georgian princess Rusudan.² Theodora was supported by a Georgian army sent by King David Narin. This episode gave the Georgians even more opportunity of becoming familiar with the coinage of Trebizond.

Once imitation of John II's aspers had begun, no attempt was made to introduce new types from Trebizond. The Georgian fabrications all bear the name of that monarch, or vague shapes representing degradations of it, in Greek characters. In spite of this, they are known as "Kirmaneuli" or "Kilmanauri," i.e., coins of Kyr Manuel, the first Emperor of Trebizond whose coins had enjoyed wide circulation in western Georgia. The widely varying stages of degradation of these imitations, and the rubbed and battered condition of many of the surviving specimens, indicate that they were minted and circulated over a long period. This is confirmed by documentary evidence: throughout the 15th and as late as the 17th century, the "Kirmaneuli t'et'ri" (i.e. white, or silver piece) is mentioned in charters, often with the qualifying adjective "dzveli" or old. It was the usual monetary unit employed in royal charters laying down the blood money of members of the nobility and other deserving subjects.³

¹ It is hard to follow Wroth (*Vandals, etc.*, pp. 255–56) in regarding as Georgian imitations a small group of aspers of Manuel I on which the epithet δ Τραπεζούντιος is added to the name of St. Eugenius. It seems more likely that a certain lack of elegance in this series arises from its early, experimental stage of development.

² O. Retowski (Retovsky): "Die Münzen der Komnenen von Trapezunt," in *Numizmaticheskyy Sbornik*, I, Moscow, 1911, p. 244.

³ S. Kakabadze, "Sasikhlo sigelebis shesakheb," in *Saistorio Moambe*, II, Tiflis, 1924, pp. 1–107. As late as 1601, King Rostom of Imeret'i edicted a blood-price of "80,000 dzveli kirmanauli" (p. 38).

It seems clear however that quantities of "Kirmaneuli" specified refer not to the number of coins to be paid, but to their total weight in silver: King Bagrat II wrote in a charter in 1472: "For whoever knows not the nature of a Kirmanauli t'et'ri, a Kirmanauli is the weight of a t'angi."¹ The average Georgian Kirmaneuli weighs around two grammes, or 2½ t'angi.

A full description of the innumerable variants encountered in this group will be found in the works of Retovsky and Wroth.² It seems sufficient for our purposes to divide them into two categories according to their degree of barbarism, which becomes progressively greater as the series diverges little by little from its Trapezuntine prototype. In extreme examples, the Saint's face assumes a bloated aspect, as if suffering from tooth-ache. Mr. Roland Gray has kindly pointed out the existence in the Whittemore Collection at the Fogg Museum at Harvard of a couple of specimens which surpass in crudity any illustrated in the literature.

The examples in the ANS collection fall into the following categories:

52. "Kirmaneuli t'et'ri:" Imitations of aspers of John II of Trebizond. [Mints in western Georgia: K'ut'ais, Akhaltsikhe (?) etc.]
Early phase of degradation (late 13th.-14th. centuries?).

Obv. John II, bearded, standing facing, holding in r. labarum with short shaft, in l. globus cruciger, distorted in one case to resemble a long cross; wears crown, mantle and tunic and sash passing diagonally across tunic and falling over l. arm, the robes being decorated with pellets in various combinations. In field, upper r., traces of *manus Dei* crowning the Emperor, often distorted or effaced. Below, l. or r., Solomon's Seal.

¹ S. Kakabadze, in *Saistorio Moambe*, II, p. 63. A t'angi or dangi is the sixth part of a miskhal, or .8 gr. When the Georgian monetary system became identified with that of Persia, the dangi was considered equivalent to the weight of a shāhī or shauri. The Kirmaneuli was then valued at two shauris. (See Karst, *Précis de numismatique géorgienne*, pp. 15, 30; Prince Wakhush, *Sak'art'velos istoria*, ed. Bak'radze, Tiflis, 1885, p. 299.)

² Retovsky, *Münzen der Komnenen*, pp. 220-41, Pls. VIII-X; Wroth, *Vandals, etc.*, pp. 272-73, Pl. XXXVII, Nos. 6-10.

Inscription in varying degrees of distortion:

I	Ω	N
	O	
K	O	O
hN		C

Rev. St. Eugenius, bearded and nimbate, standing facing; in r., long cross; l. holds robe.

Inscription in varying degrees of distortion:

A	Γ
	Ε
Ε	N I
	O
V	C

AR 20-23 mm. 1.83-2.11 gr.

PLATE IX, 8-11.

53. "Kirmaneuli t'et'ri."

Later phase of degradation (fourteenth-fifteenth centuries?).

Obv. John II, standing facing, as in preceding type. Labarum and globus cruciger degenerated into almost meaningless shapes. Features and robes of Emperor more crudely and schematically represented. Below, l. or r., Solomon's Seal. Inscription further garbled.

Rev. St. Eugenius, standing facing, as in preceding type. Features more crudely represented, taking on swollen appearance. Inscription further garbled.

AR 21-22 mm. 1.72-2.21 gr.

PLATES IX, 12-13 and X, 1.

It is difficult to be anything but sceptical about the attempts which have been made to read Georgian inscriptions on certain examples of this Georgian imitation asper series. In particular, efforts have been made to turn the degraded obverse inscription into the letters MP'GI, for "Mep'e Giorgi," or "King Giorgi," in Georgian ecclesiastical majuscules. One such example is attributed by Barataev to King Giorgi III (1156-84), an obvious anachronism, by Bartholomaei and Langlois

to Giorgi VIII (1446–66) and by Retovsky, conjecturally, to Giorgi the Brilliant (1315–46).¹ Comparison of the illustrations given in support of this reading with specimens in the ANS and other collections make it more than doubtful whether these “Georgian characters” are anything more than distortions of the Greek inscription, without any particular significance.

Although the attribution to the various Georgian kings named Giorgi cannot be substantiated, there is a strong presumption that the coins were indeed associated with the name Giorgi, not indeed of a king, but of Georgia’s patron saint of that name, the famous dragon-slayer martyred by Diocletian, and also patron saint of England. In the code of King Wakhtang VI (early eighteenth century), mention is made of a silver piece of ancient times called “Giorgauli.”² King Bagrat of Imeret’i in the fifteenth century establishes the wer-geld or blood money of one of his subjects as “80,000 Gogauri (corruption for Giorgauli) t’et’ri.”³ Now on many of the more degraded specimens of these Georgian “Kirmaneuli” imitations, the only part of the name of St. Eugenius remaining consists of the letters ΓΕ, which might equally well be the beginning of the name of St. George.

It has to be borne in mind that the cult of St. Eugenius was local and peculiar to Trebizond, and quite unfamiliar in Georgia. In Georgian medieval iconography, St. George is omnipresent. He is not always shown on horseback; often he appears full-face holding a lance. If a long cross be substituted for the lance, his effigy is not unlike that of St. Eugenius on the aspers. (Paradoxically, St. Eugenius also had his equestrian phase: when Alexius II of Trebizond and his successors took to being represented on horseback after the familiar Anatolian pattern, St. Eugenius in sympathy also took to horse on the reverse of the coinage). An ikon of the fourteenth century from the church of Sujuna in Mingrelia shows St. George standing facing, with his name inscribed in Greek thus:

¹ Barataev, *Num. fakty*, section II, Pl. I; Bartholomaei, *Lettres numismatiques*, p. 46; Langlois, *Essai*, p. 104 (cf. also Langlois, *Numismatique de la Géorgie au Moyen Age*, Paris, 1852, p. 41); Retovsky, *Münzen der Komnenen*, p. 221.

² Karst, *Précis de numismatique géorgienne*, p. 12.

³ Kakabadze, in *Saistorio Moambe*, II, 1924, p. 58.

О	Г
А	Є
Г	О
І	Р
О	Г
	І
О	О
С	С

As can be seen, the layout of the lettering resembles that of the Trebizond aspers' reverse.¹ Our theory is, therefore, that the image of St. Eugenius was confused in Georgian popular estimation with the familiar St. George. Father V. Laurent has confirmed in personal discussion that such a transfer of identity of saints or rulers to fit in with local conditions and beliefs was also a frequent occurrence when Imperial Byzantine coinage was imitated by barbarian peoples in the west.

The Atabag of Samtskhe, Aghbugha, who ruled at Akhaltsikhe according to some sources in the late fourteenth, to others in the mid-fifteenth century, alludes in his Code of Laws to the fact that "Qazanuri t'et'ri" (dirhems of Ghāzān Khan) were current there in his grandfather Bek'a's time, but that they had now been replaced by coins "of the time of the great King Giorgi," i.e., Giorgi the Brilliant.² This statement does not specify that King Giorgi's name actually appeared on the coins. It has been shown in the chapter on the Mongol Period that the Il-Khans established a mint at Akhaltsikhe under Ghāzān, but it had apparently passed out of their hands by the time of Abū Sa'īd, Giorgi the Brilliant's contemporary. It may well be asked whether the mint was simply dismantled, or if not, what money was then minted in Akhaltsikhe. The evidence of coin hoards shows that Samtskhe, the domains of Bek'a and Aghbugha, was one

¹ E. T'qaishvili, "Sudzhunskaya tserkov' i ee drevnosti," in *Khristiansky Vostok*, V, 1917, pp. 40-50, Pls. XXVII, XXVIII, XXX, XXXII. See also *Georgische Kunst: Ausstellung der Deutschen Gesellschaft zum Studium Ost-europas*, Berlin, 1930, Abbildung 7: "Hl. Georg aus Oni (XIII Jahrhundert)." This shows an analogous example from Ratcha in Imeret'i.

² Karst, *Précis de numismatique géorgienne*, p. 14; Kakabadze, in *Saistorio Moambe*, II, 1924, p. 89.

of the regions where "Kirmaneuli" Trebizond imitations most commonly circulated. The answer in all probability is that in the time of Giorgi the Brilliant, Akhaltsikhe was a centre for the fabrication of imitation aspers, and that these are the coins of which Aghbugha was thinking.

With regard to denomination, Kakabadze concludes that the Kirmaneuli and Giorgauli were of identical value.¹ To have been used in establishing wergeld rates in royal charters, the Giorgauli must have been a coin of recognized pattern and wide circulation. This leads one to doubt whether Kapanadze is justified in identifying certain isolated barbarous imitations of later Il-Khanid issues, on which he tentatively reads the name and title of King Giorgi, with the Giorgauli t'et'ri, especially as his specimens weigh only 1.01 to 1.08 grammes, about half the weight of the Kirmaneuli.²

To sum up, our view is that Georgian imitations of the asper of John II, usually called Kirmaneuli, were also known as Giorgauli by confusion of St. Eugenius with St. George, and also served as the general currency of western Georgia in the time of King Giorgi the Brilliant.

It is worth adding that the Sukhum Museum in Abkhazia possessed a unique silver piece of Kirmaneuli type discovered in 1927, and bearing the name of Wamiq Dadiani I (1384-96). This interesting piece has been published by Kapanadze, who provides an adequate illustration.³ Perhaps it has some connection with the "Tskhumuri" (? for "Sukhumuri") silver pieces referred to in some medieval wergeld charters, though it is hard to come to any conclusion on the basis of a single specimen.⁴

¹ Kakabadze, in *Saistorio Moambe*, II, 1924, p. 92.

² D. Kapanadze, "Zogiert'i gaurkveveli k'art'uli p'ulis dat'arighebisat'vis," in the Tiflis Museum *Moambe*, XIB, 1941, pp. 133-44.

³ See the Tiflis Museum *Moambe*, XIIB, 1944, p. 208, Pl. facing p. 203, No. 10; Pakhomov, *Klady Azerbaydzhana*, II, Baku, 1938, No. 483; *Vizantiysky Vremennik*, III, 1950, p. 209.

⁴ E.g., King Giorgi VIII, 1458: "220,000 dzveli Tskhumuri;" 1463: "400,000 dzveli Tskhumuri" (Kakabadze, in *Saistorio Moambe*, II, 1924, p. 63.)

VII. THE POST-TIMURID PERIOD

(Fifteenth–Sixteenth Centuries)

The ANS collection contains no coins of the Georgian kingdoms dating from this period. The ravages of Tamerlane had reduced the country to a state of ruin and devastation from which it never completely recovered. What rare coins of this epoch have come to light bear witness to the land's deplorable condition by their crude fabric and the debased silver from which they were struck.

Langlois has published coins of Giorgi VII (1393–1407) and Constantine I (1407–12) from the Lori hoard discovered in 1830¹. Our knowledge of the later fifteenth century monetary series is based principally on the important Gori hoard found in 1935, containing almost ten thousand pieces. The substantial portion acquired by the Tiflis State Museum has been studied and analysed by Kapanadze in an exceedingly able article.² Many of the coins are of types previously unknown, and can be ascribed beyond reasonable doubt to Wakh-tang IV (1443–46), Giorgi VIII (1446–66), Bagrat VI (1466–78) and Constantine II (1478–1505).³ There are also a few which appear to belong to the co-regnancy of Bagrat VI and Constantine II, having traces of the names of both rulers.

The characteristic type of Constantine II's coinage, of which several hundred were recovered from the hoard, shows on one side a lamb bearing on its back a cross, and on the other the King's name or

¹ Langlois, *Essai*, pp. 94–99, Pl. VII, Nos. 11–18. The dubious coins which Langlois ascribed to Giorgi VII and Aḥmad Jalā'ir have been discussed above, in the chapter on the Mongol period.

² D. Kapanadze, "XV saukunis k'art'uli p'ulis Goris gandzi," in the Tiflis Museum *Moambe*, 1940, pp. 279–305.

³ The engravings of coins of other types ascribed by Langlois to some of these kings (*Essai*, Pl. VIII, Nos. 1–8) do not inspire confidence, though comparison with the actual coins now in the Cabinet des Médailles, Paris, shows that they are reasonably faithful reproductions. It should be noted that some of them bear a superficial resemblance to early crude types of Russian den'ga.

monogram in various combinations of Georgian ecclesiastical majuscules:

ჲ ლ ჲ
—
ჲ ჲ ჲ

ჰ ჲ ჳ ჲ
—
ჲ ჲ ჲ ჲ

ჰ ჲ
—
ჲ ლ

ჲ ლ
—
ჲ ჲ

The Tiflis Museum also possesses a Georgian coin, so far unpublished, attributed by Kapanadze to David X (1505–25).¹

After David X, the Georgian national coinage seems to have lapsed. The triumph of regional particularism after the death of Alexander I (1412–43) had resulted in the splitting up of Georgia into small principalities, constantly engaged in civil strife. In eastern Georgia, the Bagratids of K'art'li and Kakhet'i rivalled one another from their capitals at Tiflis and Gremi, failing to form a united front against the new Safavi power in Persia. In the west, Imeret'i had lost Abkhazia, Mingrelia, Guria and Samtskhe, which were ruled by their own petty dynasts. Samtskhe fell to the Turks in 1578, and the rest of western Georgia suffered from their raids and exactions, which included tributes of male and female slaves, until the Russian occupation in the nineteenth century.

According to a recent report from Tiflis, however, a unique coin bearing the name and effigy of King Giorgi II of Imeret'i (seventeenth century) has come to light in Svanet'i. T. Lomouri is preparing to publish this important find.²

As compensation for the decline of the national coinage, the money of neighbouring Muslim powers became generally current in Georgia, where coins of the Shīrvānshāhs, Black and White Sheep Turcomans and early Safavis and Ottoman Sultans are constantly dug up, as well as occasional Venetian sequins and other gold pieces current in the Levant.

¹ Tiflis Museum *Moambe*, XB, 1940, p. 288.

² Tiflis Museum *Moambe*, XVIB, 1950, "Muzeumis k'ronika," p. 281.

VIII. GEORGIA AND THE SAFAVIS

(1604–1722)

The long series of attempts by the Shahs of Persia to bring eastern and southern Georgia by force or cajolement under the Iranian sceptre culminated in 1614 in a systematic effort by Shah ‘Abbās I to depopulate and subjugate Kakhet‘i and K‘art‘li. King Luarsab of K‘art‘li was lured into captivity and strangled, and over a hundred thousand Georgians deported to distant parts of Persia. The Shah’s garrisons were installed in what remained of the principal towns, and a puppet ruler, Bagrat VII, installed in Tiflis. The doughty King T‘eimuraz I of Kakhet‘i, however, continued for many years to harass the occupying power.

A Persian Imperial mint had begun to operate in Tiflis even before ‘Abbās’s invasion. The earliest coins of the Safavi series minted there bear the date A.H. 1013/1604–5 A.D.,¹ and fall in the reign of Giorgi X of K‘art‘li (1600–5), who had been obliged to acknowledge the Shah’s suzerainty following the Persian recapture of Erivan from the Turks in 1602.²

As these Tiflis Safavi issues follow well-known Persian patterns, fully described in standard works on the coinage of the Shahs of Iran,³ it has not seemed necessary to describe in detail each item in the ANS collection, beyond giving lists of dates and reigns represented.

Shah ‘Abbās I (1581–1629)

54. ‘Abbāsī Tiflis A.H. 1014 (?)/1605–6 A.D.

Irregular oval cast planchet.

AR 27 mm. 7.13 gr.

PLATE X, 2.

¹ L. Krehl, *De numis muhammadanis in numophylacio regio Dresdeni asservatis commentatio*, Leipzig, 1856, p. 69.

² Allen, *History of the Georgian People*, p. 165.

³ R. S. Poole, *The Coins of the Shahs of Persia in the British Museum*, London, 1887; H. L. Rabino di Borgomale, *Coins, Medals and Seals of the Shāhs of Irān, 1500–1941*, London, 1945, with *Album*, Oxford, 1951.

Three other specimens:

N.D. 19 mm. 7.09 gr. (thick fabric)

N.D. 23 mm. 7.19 gr. (badly struck)

N.D. 24 mm. 7.54 gr. (irregular fabric).

The inferior workmanship of these pieces suggests that some of them at least are provincial imitations, possibly from western Georgia. The seventeenth century missionary Father Archangelo Lamberti notes in his "Relation de la Mengrellie" that Prince Levan Dadiani of Mingrelia (1605-57) struck money "avec des caractères arabes, semblable à celle qui a cours dans la Perse, nommée Abassi; mais ceux du pays estiment davantage les réaux d'Espagne et les monnaies étrangères." (See M. Thévenot, *Relations de divers voyages curieux*, tom. I, Paris, 1696, p. 43.)

Autonomous coppers, or fulūs,¹ were struck in every city of importance in Persia from the early seventeenth century. Those of Tiflis are among the earliest examples recorded. Markov and Lane-Poole list a type of A.H. 1012/1603-4 A.D., showing a three-masted ship, and others of subsequent dates depicting the sun rayed, an antelope, a rhinoceros and a lion seizing a bull.²

55. Fulūs Tiflis A.H. 1014/1605-6 A.D.

Obv. Lion, facing left; above, ornaments, degradation of sun. Around, arabesque.

Rev. Area, within lozenge, having ornament on each side, shows lion facing left.

Margin:

ضرب فلوس تفلیس ۱۰۱۴

Fulūs struck at Tiflis, A.H. 1014.

Æ 26 mm. 10.20-10.33 gr.

PLATE X, 3.

Markov, *Inventarny Katalog*, p. 766, No. 84; Poole, *Shahs of Persia*, p. 234, Nos. 95-96; Rabino, *Album of Coins, Medals and Seals of the Shāhs of Irān*, Pl. XXXIII, No. 57.

¹ Plural of Arabic *fals*, standardized in Persian monetary terminology in singular sense.

² Markov, *Inventarny Katalog*, pp. 766-67; Poole, *Shahs of Persia*, p. 235.

This seems an appropriate point at which to include two coppers of obscure type in the ANS collection, although their attribution to Tiflis is open to question.

56. Fulūs Tiflis(?) N.D.

Obv. Lion, left, and sun rayed. Linear border.

Rev. تڤليس (?) Tiflis (?)

ضرب Struck

Æ 26 mm. 8.73 gr.

PLATE X, 4.

57. Fulūs Tiflis(?) N.D.

Obv. Horse, left, within ornamental border.

Rev. تڤليس (?) Tiflis (?)

فلوس fulūs

ضرب struck.

Æ 25 mm. 8.16 gr.

PLATE X, 5.

Şafī I (1629–42)

Under this monarch, Perso-Georgian relations took a turn for the better. Şafī owed his throne to the prompt action of the Georgian prince Khusrau-Mīrzā, the Dārūgha of Isfahan. Khusrau was rewarded with the throne of K'art'li and reigned as King Rostom from 1632 until his death in 1658.

58. 'Abbāsī Tiflis Date effaced.

Æ 21 mm. 7.28–7.49 gr.

PLATE X, 6.

'Abbās II (1642–66)

During the reign of 'Abbās II, the aged Rostom died and was succeeded by his adopted son, Wakhtang V, of the Bagratids of

Mukhran. Wakhtang reigned under the title of Shahnavaz as a vassal of the Shahs until his death in 1676.

The silver coins in the ANS collection struck by 'Abbās II in Tiflis bear the following dates: A.H. 1060 (?), 1061, 1064, 1065, 1066, 1071, 1072, 1073, 1074, 1075 and 1076.

59. 'Abbāsī of five shāhī Tiflis A.H. 1069/1658–9 A.D. onwards.

℞ 27–31 mm. 9.01–9.11 gr.

PLATE X, 7.

60. 'Abbāsī Tiflis Before A.H. 1066/1655–6 A.D.

℞ 23–25 mm. 7.18–7.31 gr.

61. Maḥmādī¹ or half 'abbāsī Tiflis A.H. 1061/1650–51 A.D.

℞ 19 mm. 3.49 gr.

Şafī II, later Sulaymān I (1666–94)

Coins of this Shah struck at Tiflis are rarer than those of preceding and subsequent reigns. This may reflect the troubled situation resulting from the Persian policy of encouraging the rival prince Erekle I in his pretensions to the throne of K'art'li, at the expense of King Giorgi XI.

62. As Şafī II. 'Abbāsī. Tiflis. A.H. 1078/1667–8 A.D.

℞ 24 mm. 7.27 gr.

63. As Sulaymān I. 'Abbāsī. Tiflis. A.H. 1094, 109* and 1104
1682–93 A.D.

℞ 22–27 mm. 6.66–7.34 gr.

PLATE X, 8.

64. As Sulaymān I. Shāhī. Tiflis. Date effaced.

℞ 15 mm. 1.71 gr. (holed).

Shah Sulṭān Ḥusayn (1694–1722)

The reign of Sulṭān Ḥusayn, a prince of exceptional incompetence and superstition, ended in the conquest of Iran by the Afghan invader Maḥmūd and the collapse of the Safavi realm.

¹ Often called Maḥmūdī, but Rabino (*Coins of the Shahs*, p. 15) insists that the coin's name is an abbreviated form of "Muḥammādī."

The silver coinage of this reign falls, so far as the Tiflis mint is concerned, into three chronological groups, which will be treated in tabular form:

Group I, A.H. 1106-24/1694-1713 A.D.

- | | | |
|------------------------------|---------------------------------|--------------|
| 65. 'Abbāsī of five shāhī. | ℞ 33 mm. 9.09 gr. | PLATE XI, 1. |
| 66. 'Abbāsī. | ℞ 23-27 mm. 7.12-7.37 gr. | |
| 67. Maḥmadi or half 'abbāsī. | ℞ 19-20 mm. 3.57-3.64 gr. | |
| 68. Shāhī. | ℞ 16 mm. 1.98-2.07 gr (looped). | |

About A.H. 1127/1715 A.D., this series is superseded by an entirely distinct set of silver coinage, of oval planchet. A solitary round shāhī of A.H. 1128 in the ANS collection testifies however that the change was not altogether complete.

Group II, A.H. 1127-29/1715-17 A.D. (Oval planchet series).

- | | | |
|----------------------------|---------------------------|-------------|
| 69. 'Abbāsī of five shāhī. | ℞ 27 mm. 8.23-8.57 gr. | PLATE XI, 2 |
| 70. Maḥmadi. | ℞ 20-21 mm. 3.40-3.41 gr. | |
| 71. Shāhī. | ℞ 19 mm. 1.70 gr. | |

The last years of Sultān Ḥusayn's reign, A.H. 1130-34, saw a reversion to the conventional round planchet type of currency. Furthermore, the weights of each denomination were substantially reduced.¹

Group III, A.H. 1130-34/1717-22 A.D.

- | | | |
|--------------|---------------------------|--------------|
| 72. 'Abbāsī. | ℞ 22-26 mm. 5.15-5.38 gr. | PLATE XI, 3. |
| 73. Maḥmadi. | ℞ 19 mm. 2.64 gr. | |
| 74. Shāhī. | ℞ 16 mm. 1.32-1.35 gr. | |

¹ This accords with the statement in the *Tadhkirat al-mulūk*, ed. V. Minorsky, London, 1943, p. 60: "In the year when the former Shah was starting for Qazvin (A.H. 1129/1717 A.D.), the weight of an 'abbāsī was fixed at 7 dāngs," equivalent to one and one sixth mithqāls, or 5.38 grams. See also the editor's commentary, pp. 129-32.

IX. THE COINAGE OF THE HOUSE OF MUKHRAN

(1712-19)

During the early part of Shah Sultān Ḥusayn's reign, K'art'li was governed by Erekle I of the Bagratids of Kakhet'i. In 1703, however, the Mukhranian Bagratids were reinstated. King Giorgi XI of K'art'li was appointed Commander-in-Chief of the Persian army, and his nephew Wakhtang became Regent of Georgia. Giorgi and his successor, Kaikhusrau, were killed in the war against the Afghans of Qandahār, and in 1711 Wakhtang became King of K'art'li as Wakhtang VI. In the following year, he went to Isfahan to receive his investiture from the Shah, leaving his brother Simon as Regent in Tiflis.

Simon conceived the idea of reviving a Georgian national monetary series in copper, without of course challenging the standard Safavi silver coinage which was struck at the Shah's Tiflis mint. A convenient precedent was provided by the autonomous coppers struck in all important towns of the Persian empire, including Tiflis itself. The only specifically Georgian feature of the Regent Simon's fulūs, which are dated A.H. 1124/1712-13 A.D., consists of the Georgian mkhedruli characters ზსე, for "Simon," worked into the obverse design, which represents a dragon.¹

Autonomous coppers of the value of two to three qāzbeḡī,² representing a buffalo, but without Georgian inscription, were struck at Tiflis in the same year.³

All these coppers are known in general to the Georgians as "shavi p'uli," or black money, or simply as "p'uli," as distinct from "t'et'ri p'uli" or simply "t'et'ri," which means white or silver money. The most common denominations received Georgianized names, such as

¹ Bartholomaei, *Lettres numismatiques*, Pl. II, Nos. 11-12; Langlois, *Essai*, pp. 110-11, Pl. VIII, Nos. 10-11; W. H. Valentine, *Modern Copper Coins of the Muhammadan States*, pp. 118-19, Nos. 42-44.

² 1 qāzbeḡī = 5 dinars = $\frac{1}{10}$ shāhī = $\frac{1}{4}$ bisti.

³ Valentine, pp. 118-19, Nos. 45-46.

bisti, for bīstī (large copper, worth 20 dinars), shauri, for shāhī, and abazi, for ‘abbāsī, the two most widely used silver pieces.

As he refused to become a Muslim, Wakhtang was detained in Persia for several years. In 1717, the regency of Georgia was granted to his son Bak‘ar, who ruled the country for the next two years, until Wakhtang was allowed to return to Tiflis. Bak‘ar introduced an attractive peacock motif on his copper coinage, of which the ANS collection has four specimens. Their legends being partly effaced, these have been reconstructed, as in the case of later eighteenth century coppers, from specimens illustrated in the literature.

75. Fulūs Tiflis A.H. 1130/1717-18 A.D.

Obv. Peacock to right. In field, behind peacock's tail, between tail and head, and in front of breast, in Georgian mkhedruli characters, ბაკ, for "Bak‘ar." Groups of dots artistically disposed in field.

Rev.	تفليس	Tiflis
	۱۱۳۰ ضرب	Struck 1130
	فلوس	Fulūs.

Groups of dots in field.

Æ 23 mm. 7.89-8.07 gr. PLATE XI, 4.

Barataev, *Num. fakty*, section IV, Pl. I, No. 1. The ANS collection's specimens being much rubbed, this example is illustrated by one kindly lent by Professor E. Zygmant.

76. Fulūs Tiflis A.H. 1130.

Obv. Peacock to left. In field, in front of peacock's breast, between tail and head, and behind tail, in Georgian mkhedruli characters, ბაკ, for "Bak‘ar." Groups of dots artistically disposed in field.

Rev. As in preceding example.

Æ 24 mm. 8.10 gr. PLATE XI, 5 (Obv. only).

Barataev, *Num. fakty*, section IV, Pl. I, No. 4; Langlois, *Essai*, p. 115, No. 59; Valentine, pp. 118-19, No. 50.

77. Fulūs. Tiflis A.H. 1131/1718-19 A.D.

Obv. Peacock to right, etc., as in No. 75.

Rev. As in No. 75, but date: \ \ Ƴ \ , A.H. 1131.

Æ 24 mm. 6.86 gr.

PLATE XI, 6.

Barataev, *Num. fakty*, section IV, Pl. I, Nos. 2-3; Langlois, *Essai*, p. 115, No. 58; Valentine, pp. 118-19, No. 47. These fulūs of about 7-8 gr. are of 2 qāzbeḡ = 2 Georgian p'uli. In the writer's possession is a fulūs of this type, value 1 qāzbeḡ = 1 Georgian p'uli, diameter 21 mm., weight 3.99 gr. (date effaced).

Of King Wakhtang VI himself, no coins are known, his residence at Tiflis from 1719 to 1723 being taken up with the conflicts and political complications resulting from the decadence and collapse of the Safavi monarchy.

X. GEORGIA UNDER OTTOMAN OCCUPATION

(1723-35)

Profiting by the fall of the Safavi empire, the Turkish Sultān Aḥmad III (1703-30) occupied Georgia and most of western Iran in 1723. King Wakhtang VI could not reconcile himself to the exigencies of the occupying power, and in 1724 retired to Russia. Nominal rule under the Turkish authorities was exercised for a time by Wakhtang's renegade brother Iese, who became a Sunnī with the title of Muṣṭafā Pāshā.¹

The Turks set up a mint at Tiflis as well as at Erivan, Ganja and Tabriz. As usual in Ottoman coins of this period, those struck at Tiflis under Aḥmad III at various dates from A.H. 1138/1725-6 A.D. until his abdication in 1143/1730 all bear Aḥmad's accession date 1115/1703. Likewise, those minted at Tiflis from 1730 until about 1735 by Aḥmad's nephew and successor Maḥmūd I (1730-54) all bear Maḥmūd's accession date A.H. 1143. The theory that the rosettes on many of these Ottoman coins conceal letters with numerical value, representing regnal years, is not now held tenable. It is more likely that they are the monograms of the mint-masters.

Interesting details on these Ottoman mints in Persia and Georgia are given in Ghālīb's work on the coinage of Turkey, where he quotes Küchük Chelebi-zāde, the continuator of the chronicle of Meḥmed Rāshid.² According to this account, early in the year A.H. 1138 (late 1725), the Seraskier in command at Tabriz, 'Abdullāh Pāshā Köprülü, acting on authority granted by the Imperial Court, opened a mint there and struck some trial gold pieces. These were sent to the central mint at Constantinople for approval, where they were scrutinized by the experts and found satisfactory as to weight and the fineness of the gold employed. Their workmanship, however, was found deficient ;

¹ Allen, *History of the Georgian People*, p. 187.

² The passages in question occur in the *Ta'riḫ-i Rāshid*, 2nd. ed., VI, Stambul, 1282, pp. 306, 330. On these historians, see F. Babinger, *Die Geschichtsschreiber der Osmanen*, Leipzig, 1927, pp. 268-70 and 293-94.

the borders were uneven and the requisite ornamental motifs had been omitted. Dies were therefore cut at the Constantinople mint, bearing the mint-names of Tabriz, Erivan and Tiflis, and sent with a pattern piece of each denomination to the Ottoman commanders at these places, together with technical instructions.¹

Aḥmad III, Sultan of Turkey (1703–30)

78. Altūn or sequin funduqlī Tiflis Aḥmad III, accession: A.H. 1115/
1703 A.D.

Obv. Ṭughrā.

Rev.	ضرب في	Struck at
	تفليس	Tiflis
	۱۱۱۵	1115.

Above, ornamental monogram or rosette.

N 19 mm. 3.44 gr.

PLATE XI, 7.

Rabino, *Album*, Pl. XXIX, Nos. 747–48; S. Lane-Poole, *The Coins of the Turks in the British Museum*, London, 1883, No. 480; Ghālīb, *op. cit.*, No. 645. Another kind of gold coin struck at Tiflis under Aḥmad III, with the “Sulṭān of Two Continents” formula, is described by Ghālīb, No. 644. There are two examples of this latter type in the Garrett Collection in Baltimore.

Ghālīb further mentions that the Ottoman silver coins minted in occupied cities of the Persian empire were specially adapted to conform in weight to the Safavi ‘abbāsī series. The onluq was made to correspond to the ‘abbāsī, the beshlik to the half ‘abbāsī or maḥ-madī.² This is fully borne out by the examples in the ANS collection, as will be seen by the descriptions given below. No doubt these silver coins were at first struck on planchets remaining in stock at these mints at the time of the Turkish occupation, more being made on the same standard as later required. In some instances, Safavi silver pieces were restruck with the new dies. (The ANS collection has an ‘abbāsī thus overstruck by the Turkish authorities at Tabriz).

¹ Ismā‘īl Ghālīb, *Taqvīm-i Meskūkāt-i ‘Othmānīyeh*, Constantinople, 1307, pp. 275–76.

² Ghālīb, *op. cit.*, p. 282.

This explains the fact that the Ottoman onluq-‘abbāsī minted in Persia and Georgia regularly weigh about 1.1 gram less than their Constantinople prototype, thus equalling the weight of the ‘abbāsī of Shah Sulṭān Ḥusayn’s last period, i. e., 7 dāngs, or 5.38 grams. It also accounts for the existence of a half beshlik ($2\frac{1}{2}$ pāṛā) piece from these Turkish-occupied Persian mints, which is really a Persian shāhī. This denomination does not exist in the monetary series struck in Turkey proper.

79. Onluq-‘abbāsī Tiflis Accession: A.H. 1115.

Obv. سلطان البرين	Sulṭān of the Two Continents,
وخاقان البحرين	And Khāqān of the Two Seas,
السلطان بن	Sulṭān, son of
السلطان	The Sulṭān. (Lane-Poole’s “Formula B”).

Rev. Ṭughrā.

ضرب في	Struck at
تفليس	Tiflis
١١١٥	1115.

AR 24–26 mm. 5.18–5.31 gr. (1 holed). PLATE XI, 8.

Lane-Poole, *Coins of the Turks*, No. 481; Ghālib, No. 446; Rabino, *Album*, Pl. XXX, No. 754.

80. Beshlik-maḥmadī. Tiflis. Accession: A.H. 1115.

As preceding example.

AR 19 mm. 2.64 gr.

81. $2\frac{1}{2}$ pāṛā or $\frac{1}{2}$ beshlik-shāhī. Tiflis. Accession: A.H. 1115.

As preceding example.

AR 15 mm. 1.31 gr. (holed).

Ghālib, No. 647.

Sultan Aḥmad III being deposed in 1730, money continued to be struck at Tiflis by his successor Maḥmūd I, until Tiflis was recaptured by the Persians under Nādir in 1735. The ANS collection does not contain examples of Maḥmūd's Tiflis series, of which however the British Museum and other collections have specimens.¹ The weight standard remained unchanged.

¹ Lane-Poole, *Coins of the Turks*, No. 539; Ghālib, No. 705; Rabino, *Album*, Pl. XXX, No. 755.

XI. NĀDIR SHAH IN GEORGIA

(1735-47)

The phenomenal recovery of Persia under Ṭahmāsp-Qūlī-Khān, the future Nādir Shah, culminated in the expulsion of the Turks from Western Iran. Tiflis was recaptured in 1735. The first coins struck there by the conqueror were in the name of the infant Safavi puppet, ‘Abbās III. The silver standard of Sulṭān Ḥusayn’s last period and of the Osmanli mints in Persia is maintained.

‘Abbās III (1731-36)

82. ‘Abbāsī Tiflis A.H. 1148/1735-6 A.D.

Standard type with distich:

“Throughout the universe by grace divine a golden money came,
Struck by God’s shadow, a new emperor, ‘Abbās the Third by name.”

℞ 24-25 mm. 5.30-5.32 gr.

PLATE XI, 9.

Similar to Poole, *Shahs of Persia*, Nos. 208-12; see Rabino, *Coins of the Shahs*, p. 45.

83. Maḥmādī Tiflis A.H. 1148.

As preceding example.

℞ 18 mm. 2.66 gr.

Nādir Shah (1736-47)

In 1736, Persia’s leader officially assumed the royal title, under the name of Nādir Shah. An important and varied series of silver money was struck at Tiflis in his name.

84. ‘Abbāsī Tiflis A.H. 1148/1736 A.D.

Obv. First distich:

“By gold in all the earth his kingship shall be famed,
Phoenix (Nādir) of Persia’s land, world-conqueror, sovereign named.”¹

¹ Translation from Poole, *Shahs of Persia*, p. lxxxv.

Rev. Accession chronogram, composed by the Abjad system:

بتاريخ الخير فيما وقع
In the year "Whatever happens is best," i.e. A.H. 1148.¹ (Arranged in Ṭughrā-form monogram).

تفليس Tiflis

١١ ضرب ٤٨ Struck in 1148.

R 26 mm. 5.32 gr.

PLATE XII, 1.

85. 'Abbāsī Tiflis A.H. 1149/1736-7 A.D.

Obv. First distich. Below:

تفليس Tiflis

١١٤٩ 1149.

Rev. Accession chronogram, but arranged differently from preceding example.

R 24 mm. 5.24 gr.

PLATE XII, 2.

86. 'Abbāsī Tiflis A.H. 1150/1737-8 A.D. (Two varieties)

Obv. a) As preceding example. Beneath, date: A.H. 1149.²

b) As preceding example, but date removed.

Rev. Accession chronogram:

مانوس الخير فيما وقع
The date of the enthronement of
ميمننت
honoured prosperity: "What-
تاريخ جلوس
ever happens is best," i.e., ac-
cession date, A.H. 1148.

١١٥٠ 1150 (date of striking).

R 24-26 mm. 4.49-4.59 gr.

PLATE XII, 3.

Rabino, *Album*, Pl. XIII; No. 322.

¹ See the explanation of this chronogram in O. Codrington, *Manual of Muslim Numismatics*, London, 1904, p. 115.

² In this example, the mint-master had neglected to make a new die for the obverse, with the result that mutually contradictory dates appear on the two sides.

The above belong by their standard, if not by their design, to the new currency series introduced by Nādir in the second year of his reign. The weight of the ‘abbāsī was reduced from seven to six dāngs, i.e. one mithqāl, or 4.64 grams. Coins of 300 dīnārs (six shāhī) and 500 dīnārs (nādirī) weighed $1\frac{1}{2}$ and $2\frac{1}{2}$ mithqāls respectively.¹

87. Siṣad-dīnār (6 shāhī) Tiflis A.H. 1150/1737–8 A.D.

Obv. Within circle:

نادر

Nādir

السلطان

The Sulṭān.

ن

Outer linear circle and border of dots.

Rev. الله

May God

خلد

Perpetuate

ملكه تفلیس

His reign; Tiflis,

ضرب ۱۱۵۰

Struck 1150.

Æ 20–21 mm. 6.79–6.90 gr.

PLATE XII, 4.

Poole, *Shahs of Persia*, No. 226.

88. Siṣad-dīnār Tiflis A.H. 1151/1738–9 A.D.

As preceding example, but date \ \ ۵ \, A.H. 1151.

Æ 19–20 mm. 6.51–6.81 gr.

Rabino, *Album*, No. 374.

89. Nādirī (10 shāhī) Tiflis A.H. 1152/1739–40 A.D.

Obv. Second distich:

“Over Sulṭāns of earth is Sulṭān,
Nādir, Shah of Shahs, Ṣaḥibkerān.”²

¹ See the table in Rabino, *Coins of the Shahs*, p. 52.

² Translation from Poole, *Shahs of Persia*, p. lxxxv.

Rev. Within circle:

۱۱۵۲

1152

تفلیس

Tiflis

ضرب

Struck.

Æ 23-26 mm. 11.39-11.58 gr.

PLATE XII, 5.

Poole, *Shahs of Persia*, No. 250; Rabino, *Album*, Pl. XIV, No. 349.

90. Sīṣad-dīnār Tiflis A.H. 1152.

Similar to Nos. 87 and 88, but date: ۱۱۵۲, A.H. 1152.

Æ 17 mm. 6.85-6.88 gr.

PLATE XII, 6.

91. Nādirī Tiflis A.H. 1159/1746-7 A.D.

Similar to No. 89, but date: ۱۱۵۹, A.H. 1159.

Æ 24 mm. 11.29 gr.

XII. THE LAST BAGRATIDS

(1744–1800)

In recognition of their services to the Persian cause, Nādir bestowed in 1744 the throne of K'art'li on T'eimuraz of the Bagratids of Kakhet'i, and Kakhet'i on T'eimuraz's son Erekle.

Three years later, in 1747, the Shah was assassinated, and Persia relapsed into a state of anarchy.

T'eimuraz II (1744–62)

Soon after his accession, T'eimuraz began to strike copper in his name alone, and also, a little later, jointly with that of his son Erekle.¹

92. Fulūs (p'uli) Tiflis [c. A.H. 1160/1747 A.D.]

Obv. Lion (? tiger) to left. In field, in Georgian mkhedruli characters: ომრზ: T'MRZ, for T'eimuraz.

Rev. ضرب	Struck
فلوس	Fulūs
تفليس	Tiflis.

[Date effaced]

Æ 20 mm. 4.27 gr.

PLATE XII, 7.

Barataev, *Num. fakty*, section IV, Pl. I; Langlois, *Essai*, p. 118, No. 61, Pl. VIII, No. 14; Valentine, pp. 118–19, No. 51.

Although Georgia became virtually independent on the death of Nādir Shah, considerations of economic and political expediency

¹ The latter series, showing a falcon attacking a heron and dated A.H. 1165–69/1751–56 A.D., is not represented in the ANS collection. See Barataev, *Num. fakty*, section IV, Pl. I; Langlois, *Essai*, pp. 118–19, Pl. VIII, No. 17; Valentine, pp. 118–19, No. 52.

deterred T'eimuraz from immediately striking silver in his own name. The Chronicle of Papuna Orbeliani relates that Nādir's nephew, Shah Sulṭān Ibrāhīm (1748-49), who was anxious to cement an alliance with the Georgians, sent a mint-master to Tiflis, where gold and silver pieces were struck in Ibrāhīm's name.¹ Ibrāhīm was soon afterwards overthrown and killed by Nādir's grandson, Shāhrukh.

93. 'Abbāsī Tiflis A.H. 1162/1748-9 A.D.

Obv. First distich:

"By grace divine he struck a coinage of imperial worth,
Shah Ibrāhīm, his gold sun-like illumining the earth."²

Rev. Within linear circle:

۱۱۶۲

1162

تفليس

Tiflis

ضرب

Struck.

Æ 20-21 mm. 4.51-4.57 gr.

PLATE XII, 8.

94. 'Abbāsī Tiflis A.H. 1162.

Obv. Second distich:

"The sun on gold and silver minting set in shame,
Till in the coin of Ibrāhīm it found new fame."³

Rev. As preceding example, but in one instance, outer border of dots is enclosed in double linear circle.

Æ 20-21 mm. 4.55-4.57 gr.

PLATE XII, 9.

95. Shāhī Tiflis A.H. 1162.

Obv. ابرا

Ibrā-

هیم

hīm

سلطان

Sulṭān.

¹ M.-F. Brosset, *Histoire de la Géorgie*, II, 2, p. 139; Karst, *Précis de numismatique géorgienne*, p. 20; Rabino, *Coins of the Shahs*, p. 54.

² Translation from Poole, *Shahs of Persia*, p. lxxxv.

³ Rabino, *Coins of the Shahs*, p. 54. Translated by Dr. G. C. Miles, versified by D.M.L.

Rev. Mint-date formula, as preceding examples.

Æ 14 mm. 1.10 gr. (holed).

PLATE XII, 10.

Poole, *Shahs of Persia*, No. 287; Rabino, *Album*, Pl. XVI, No. 405.

With judicious impartiality, mingled with political foresight, the Tiflis mint had also begun striking silver in the name of Ibrāhīm's rival, Shāhrukh. The earliest examples were struck in the year of Nādir's death, A.H. 1160/1747 A.D., and thus antedate the coins of Ibrāhīm. The series continued until about A.H. 1170/1756-7 A.D., by which time Shāhrukh's authority no longer extended outside Khorāsān.

96. Shāhī Tiflis A.H. 1160/1747 A.D. (Two varieties)

Obv. Shī'a pious formula, surrounded in one case by the names of the Twelve Imams, in the other, occupying the whole obverse.

Rev. Distich:

"Throughout the world he struck his coin by grace divine,
Shāh Rukh the watchful hound of 'Alī Rizā's shrine."¹

Beneath:

تفلیس ۱۱۶

116(0) Tiflis

Æ 13-14 mm. 1.11-1.16 gr. (1 holed).

Poole, *Shahs of Persia*, Nos. 306-7.

97. 'Abbāsī Tiflis A.H. 1162-1170/1748-57 A.D. (Five examples)

Obv. Shī'a pious formula, surrounded in four examples (A.H. 1162, 1163, 1164, 1170) by the names of the Twelve Imams.

Rev. Distich of Shāhrukh. Beneath, mint-date formulae: A.H. 1162, 1163, 1164, 1169, 1170.

Æ 20-24 mm. 4.50-4.62 gr.

PLATE XIII, 1.

Poole, *Shahs of Persia*, No. 315; Rabino, *Album*, Pl. XVI, Nos. 419-20.

By 1752, T'eimuraz and Erekle had vindicated Georgia's newfound independence in several hard-won battles against competing Persian pretenders. The Georgian princes now judged the time ripe for an issue of silver coinage of independent type for local circulation, and

¹ Poole, *Shahs of Persia*, p. lxxxvi.

especially for paying the mercenaries in their army. A design was evolved which would be acceptable to Muslim and Christian alike, bearing an unexceptionable Qur'ānic formula, but without mention of either Muḥammad's name or those of the Georgian princes.

The standard of these anonymous Tiflis abazi ('abbāsī) was now reduced from six dāngs to four (i.e. from one mithqāl to 2/3). An official document of 1787 refers to the "abazi of 4 dangi from the new mint."¹ Four dangi or dāngs is equivalent to 3.09 grams. This standard was adhered to until the end of the Bagratid monarchy.

98. Abazi ('abbāsī) Tiflis A.H. 1166/1752-3 A.D.

Obv.	الحمد لله	Praise to God
	رب	Lord of
	العالمين	The Universe (Qur'ān, I, i).

Ornamental foliage motifs and clusters of dots.
Linear border.

Rev. Within looped ornamental border:

١١٦٦	1166
تفليس	Tiflis
ضرب	Struck.

Double linear border, with circle of large dots between the two linear circles.

Æ 19 mm. 3.02 gr.

PLATE XIII, 2.

Langlois, *Essai*, p. 117, Pl. VIII, No. 15.

Erekle II (1762-98)

The venerable King T'eimuraz went in 1760 on a fruitless mission to St. Petersburg to seek military and economic aid from the Empress Elizabeth Petrovna. He died in Russia on his return journey, and was

¹ S. Kakabadze, in *Saistorio Moambe*, II, 1924, p. 279.

succeeded by his son Erekle. Until then, T'eimuraz had reigned in K'art'li and Erekle at T'elavi in Kakhet'i, though the two kings usually worked in close collaboration. Erekle now ruled at Tiflis over the two east Georgian kingdoms reunited.

From a military standpoint, Erekle's reign was a glorious one, though Georgia had much to suffer from the depredations of the Lezghis of Daghestan and their Turkish allies. The economic situation became increasingly critical. In 1783, Erekle signed a treaty of alliance and protectorate with Russia. This brought him little advantage, but provoked the invasion of Āghā Muḥammad Khān Qājār, who sacked Tiflis in 1795. Erekle died at T'elavi in 1798.

With the help of Greek artisans from Anatolia, gold, silver and copper mines were operated at Akhtala in the south of K'art'li. The ravages of 'Omar Khan of the Avars in 1785, however, resulted in the slaughter of many of the skilled workers and the destruction of most of the mining and refining equipment.

The silver minted at Tiflis under Erekle forms an extensive but uniform series. The Tiflis mint was farmed out to an Armenian contractor. In general, the silver coinage was modelled on the type evolved by T'eimuraz II in 1752, and described above (No. 98). In the design of the abazi (the Georgian orthography of 'abbāsī), the only important innovation is the addition of the formula *یا کریم*, O [God the] All-Bountiful, which appears in a small cartouche at the head of the reverse.

Use of this formula constitutes a complimentary play on the name of Kerīm Khān Zand, regent of Persia (1759–79), on whose coins it commonly appears. This does not imply any political dependence of Erekle on Kerīm Khān, but is rather a polite gesture of conciliation, calculated no doubt to make the Georgian currency acceptable throughout Persia. The formula became stereotyped, and still appears on Georgian abazi twenty years after Kerīm's death.

The date formula on these Georgian abazi either appears at the top of the reverse inscription, as on the abazi of T'eimuraz II, or else is worked more or less haphazardly into the centre or lower area.¹

¹ Langlois, *Essai*, pp. 121–22, Nos. 64–66. (Langlois' No. 63 is a rare double-abazi of similar type.); Poole, *Shahs of Persia*, Nos. 366, 373, 376, 391–93; Rabino, *Album*, Pl. XVIII, No. 464, Pl. XIX, Nos. 495–96.

The half-abazi, often known in Georgia by the Perso-Turkish name of "uzalt'uni," for yūz-āltūn, a hundred dinārs, bears on the obverse the formula *یا کریم* interlaced, occupying the whole area, within an ornamented border. The reverse has the mint-date formula, within a linear circle.¹

99. Anonymous silver of Erekle II Tiflis.

YEAR	DENOMINATION	DIAMETER	WEIGHT
A.H. 1183/1769-70 A.D.	Abazi	20 mm.	3.07 gr.
			PLATE XIII, 3.
	Half-abazi	17 mm.	1.36 gr. (holed)
1190	Abazi	22 mm.	2.83 gr.
1193	Abazi	22 mm.	3.04 gr.
	Half-abazi	15 mm.	1.39 gr. (holed)
1194	Abazi	20 mm.	2.91 gr.
1195	Abazi	18 mm.	2.84-2.96 gr.
1196	Abazi	20 mm.	2.80 gr. (holed)
1197	Abazi	20 mm.	2.81 gr.
1198	Abazi	19 mm.	2.85 gr. (holed)
1201	Abazi	19 mm.	2.93-2.96 gr.
1202	Abazi	20 mm.	2.82 gr.
1203	Abazi	19 mm.	2.95 gr.
1204	Abazi	21 mm.	2.91 gr.
1205	Abazi	21-22 mm.	2.94-3.01 gr.
			PLATE XIII, 4.
1206	Abazi	22 mm.	2.94 gr.
	Half-abazi	15 mm.	1.19 gr. (holed)
			PLATE XIII, 5.
1207	Abazi	19 mm.	2.26-2.82 gr.
1209	Abazi	19-20 mm.	2.86-3.01 gr.
1210	Abazi	18 mm.	2.67 gr.
A.H. 1211/1796-7 A.D.	Abazi	19-20 mm.	2.85-2.93 gr.
			PLATE XIII, 6.
	Half-abazi	16 mm.	1.46 gr.

The State Coin Cabinet in Munich has specimens bearing the following additional dates: A.H. 1180, 1182, 1184, 1192, 1199, 1208 and 1212. Langlois lists several other years. This proves that the

¹ Langlois, *Essai*, p. 122, No. 67; Poole, *Shahs of Persia*, Nos. 367, 381; Rabino, *Album*, Pl. XIX, Nos. 476, 498.

uniform Tiflis silver series originated in or about the year 1180/1766-67, and was minted continuously thereafter.

In his copper coinage, which was intended mainly for local circulation within Georgia, Erekle allowed himself far more liberty. Its iconography gives interesting evidence of Georgia's increasingly stressed Russian orientation.

According to Erekle's grandson, T'eimuraz Batonishvili, copper or "shavi p'uli" ("black money," cf. Persian "pūl-i-siyāh") was struck by Erekle in four denominations:

Bisti (bistī), worth 4 p'uli or 4 qāzbeḡi or 20 dīnārs
Double p'uli
P'uli
Half-p'uli.¹

The ANS collection has specimens of each denomination except the last, which seems to be very uncommon.

100. Double p'uli Tiflis A.H. 1179/1765-6 A.D.

Obv. Regal insignia: Above, royal crown. Beneath, scales of justice. Between scales, globus cruciger. Two swords disposed to left and right of crown.

Rev. Above, within ornamental frame, in Georgian ecclesiastical majuscules: ჟ. ზ. ლ., surmounted by sign of abbreviation, "Erekle." Beneath frame, to left and right, two stars. In centre, horizontal bar, below which:

تفليس ۱۱۷۹

Tiflis 1179


ضرب

Struck

Æ 23-26 mm. 8.0-8.51 gr.

PLATE XIII, 7-9.

Barataev, *Num. fakty*, section IV, Pl. II, Nos. 1-2; Langlois, *Essai*, p. 123, No. 69; Valentine, pp. 120-21, No. 57. None of the specimens illustrated in the literature shows the final digit "9" of the date, which appears in isolation to the right of the mint-name "Tiflis," and is clearly discernible on two of the specimens in the ANS collection.

Counterstamped on obv. or rev. with Erekle's monogram in square incuse: 

¹ Karst, *Précis de numismatique géorgienne*, p. 28.

101. P'uli Tiflis A.H. 117* (? 1179).

Design as previous example. No counterstamp.

Æ 21 mm. 4.76 gr.

PLATE XIII, 10.

102. Double p'uli Tiflis A.H. 119* (? 1190)/1776-7 A.D. ?

Obv. Fish between two leaf designs. Double linear border, with circle of dots between the two linear circles.

Rev. In Georgian ecclesiastical majuscules: ჟ ლ ზ surmounted by sign of abbreviation, for "Erekle."

Below: تفليس Tiflis

ضرب Struck

۱۱۹* 119*

Border as obverse.

Æ 25 mm. 11.18 gr.

PLATE XIV, 1.

Barataev, *Num. fakty*, section IV, Pl. II, Nos. 3-4; Langlois, *Essai*, pp. 122-23, No. 68. The last digit on our specimen is effaced. Langlois states that examples of this type are known of most dates between A.H. 1179 and 1206/1765-1792 A.D., but the present writer has seen only the dates A.H. 1190 (specimen in the Chase National Bank Museum of Moneys of the World) and 119*.

103. P'uli Tiflis A.H. 11**

As previous example. Oval planchet.

Æ 24 mm. 5.90-5.94 gr.

PLATE XIV, 2.

104. Bisti Tiflis A.H. 1201 } Dated by both systems
A.D. 1787 }

Obv. Double-headed eagle, holding to left, sceptre, to right, globus cruciger. Below, in European numerals, date: 1787 (effaced on one specimen).

Rev. Erekle's name in Georgian ecclesiastical majuscules, with mint-date formula in Arabic characters below: Tiflis, 1201/1786-7 A.D.

Æ 27 mm. 16.62 gr.

⁸ Lang

Barataev, *Num. fakty*, section IV, Pl. II, No. 6; Langlois, *Essai*, p. 124, No. 70.

The Russian eagle on this and the following examples reflects Erekle's acceptance of Imperial suzerainty by the Treaty of 1783.

[illegible]

As previous example, but date on obverse 1781.

Æ 24-25 mm. 8.71-8.85 gr.

PLATE XIV, 3.

Barataev, *Num. fakty*, section IV, Pl. II, No. 5.

As Langlois justly observes, the Hijra and Christian dates on the two sides of this series frequently fail to correspond, as a result, no doubt, of the die-engravers' faulty knowledge of comparative chronology.

106. Bisti Tiflis A.H. 1210 }
 A.D. 1796 }

Obv. Single-headed eagle, holding to right sceptre and to left, globus cruciger.

Below, in European numerals, date: 1796.

Rev. Erekle's name in Georgian ecclesiastical majuscules, with mint-date formula below: Tiflis, 1210/1795-6 A.D.

Æ 27-29 mm. 19.49-22.32 gr.

PLATE XIV, 4.

Barataev, *Num. fakty*, section IV, Pl. II, Nos. 7-8; Langlois, *Essai*, pp. 125-26, No. 72.

On one example, Erekle's monogram as counterstamp in square incuse.

A few specimens of the single-headed eagle type, but with reverse copied from the silver abazi of Erekle's reign, were struck in gold.¹ These were not in general circulation, but were for presentation to the Russian court.

¹ Langlois, *Essai*, p. 125; Karst, *Précis de numismatique géorgienne*, p. 57.

Giorgi XII (1798-1800)

When he came to the throne, Giorgi was already a sick man. The threat of Persian and Lezghian invasion, coupled with hostile intrigues by rival members of the royal family, compelled him to place the kingdom of K'art'lo-Kakhet'i under direct Russian rule. The proviso was made that the Bagratid dynasty was to be maintained as hereditary Viceroys under the Tsar. After Giorgi's death in December, 1800, his eldest son David governed as nominal Regent for a few months. By the manifesto of September 12th., 1801, the Emperor Alexander I finally abolished the east Georgian monarchy and removed the Bagratids from power.

The annexation of the western Georgian kingdom of Imeret'i followed in 1810.

Giorgi XII's silver coinage is simply a continuation of the standard anonymous series minted at Tiflis over the previous half century. The standard of the abazi was maintained at four dangs as before.

107. Abazi Tiflis A.H. 1213/1798-9 A.D.

Obv. Qur'ān, I. i. (As No. 98)

Rev. Mint-date formula: Tiflis, 1213.

Above, in cartouche, Arabic pious exclamation: "O [God the] All-Bountiful."

℞ 18 mm. 2.95 gr. (holed).

PLATE XIV, 5.

Langlois, *Essai*, p. 126, No. 73; Rabino, *Album*, Pl. XIX, No. 497.

108. Half-abazi (? shauri) Tiflis A.H. 1213.

Obv. Interlaced Arabic formula: "O [God the] All-Bountiful".

Rev. Mint-date formula: Tiflis, 1213.

℞ 18 mm. 0.74 gr.

PLATE XIV, 6.

Langlois, *Essai*, p. 126, No. 74. The ANS specimen is of base silver and crude workmanship, and, if intended for a half-abazi, much under weight. It may well be a counterfeit.

109. Double p'uli Tiflis A.H. 1213.

Obv. Fish between two leaf designs.

5*

Rev. In Georgian ecclesiastical majuscules: **ⴌⴓⴑⴗⴓ**, Giorgi.

Below, mint-date formula: Tiflis, 1213.

Æ 21-22 mm. 9.04-9.84 gr.

PLATE XIV, 7.

Barataev, *Num. fakty*, section IV, Pl. II, Nos. 11-12; Langlois, *Essai*, pp. 124-27, No. 75.

110. Puli Tiflis A.H. 1213.

Design as preceding example.

Æ 20 mm. 4.43 gr.

David Batonishvili, Regent (1801).

Giorgi's son, Prince David, had time to issue only one type of copper coin before the kingdom was absorbed by Russia. Its design revives the peacock motif of Bak'ar's reign.¹ Since, however, the existence of this type is attested by only one specimen, from the Barataev collection, its attribution is subject to caution, especially as the mint-name "Tiflis" is not clearly legible.

¹ See Langlois, *Essai*, pp. 127-28, Pl. IX, No. 10.

XIII. THE RUSSO-GEORGIAN SERIES

(1804-34)

Following the occupation of Georgia, the Russian authorities were soon inconvenienced by the scarcity of money in circulation. It was not found feasible immediately to replace the Georgian monetary system and that of the neighbouring Transcaucasian Khanates by that of Russia. Moreover, the Emperor Alexander felt that the introduction of a distinctive coinage for Georgia would be a concession to the people's national susceptibility and help to reconcile them to their loss of sovereignty. Preparations were made for the reorganization of the old Tiflis mint under Russian control.

Designs for the new coinage were approved by the Emperor in October, 1802. The general direction of the Tiflis mint was entrusted to Count Apollo Musin-Pushkin, the head of the mining department of the Georgian administration.¹ The mint was officially opened on September 15th, 1804, under the auspices of the Commander-in-Chief, Prince Tsitsianov. A commemorative medal struck for the occasion shows the Russian eagle soaring towards Iberia and Colchis, bearing in its claws the Golden Fleece, with the legend: "Pokhishchennoe Vozvrashchaet," i. e., "It restores what was stolen."²

Details about the staffing of the mint, its budget and technical problems involved in its operation are contained in the important collection of official documents published by the Grand-Duke Georgy Mikhailovich.

The silver standard was fixed at 88/96, or 916²/₃ fine. The weights of the various denominations were established as follows:

¹ Grand-Duke Georgy Mikhailovich, *Russkie monety chekanennye dlya Prussii (1759-1762), Gruzii (1804-1833), Pol'shi (1815-1841), i Finlyandii (1864-1890)*, St. Petersburg, 1893, section II, pp. 6-7.

² Karst, *Précis de numismatique géorgienne*, p. 58, Pl. IX.

SILVER

Double abazi:	1 zolotnik, 46 doli.	6.3 gr.
Abazi:	71 doli.	3.15 gr.
Half-abazi:	35½ doli.	1.57 gr.

COPPER

Bisti:	3 zolotniks, 62 doli.	15.55 gr.
Double p'uli:	1 zolotnik, 79 doli.	7.77 gr.
P'uli:	87½ doli.	3.88 gr.

(The Russian pound = 96 zolotniks = 9216 doli
1 zolotnik = 96 doli = 4.266 gr.)

Although somewhat lighter in weight, the abazi was officially equated with the Russian 20 copeck silver piece, and the other denominations in proportion.

The copper series was struck until 1810 only.

Each denomination bears at the head of the reverse a letter of the Georgian mkhedruli alphabet, having a corresponding numerical value computed in terms of the Persian dīnār:

SILVER

Double abazi:	letter	ჟ, U = 400
Abazi:		ბ, S = 200
Half-abazi:		გ, R = 100

COPPER

Bisti:	letter	ჰ, K = 20
Double p'uli:		ო, I = 10
P'uli:		ჟ, E = 5

The following table illustrates the two-fold integration of the new Russo-Georgian currency into the Russian and Persian monetary scales:

GEORGIAN	PERSIAN	VALUE	
		IN DĪNĀRS	RUSSIAN
T'umani	Tūmān	10,000	10 roubles (Imperial).
Manet'i or Minalt'uni (5 abazi)	Mīn-āltūn or Hazār dīnār	1,000	1 rouble
Marchili	Shishšad dīnār	600	60 copecks
Double abazi	Dū 'abbāsī	400	40 copecks
Abazi or t'elt'i	'Abbāsī	200	20 copecks
Half-abazi,	Maḥmadī or		
Uzalt'uni or	Yūz-āltūn	100	10 copecks
T'angiri			
Shauri	Shāhī	50	5 copecks
Bisti	Bistī	20	2 copecks
Double p'uli	Fulūs of 2 qāzbeḡī	10	1 copeck
P'uli	Qāzbeḡī	5	½ copeck or denga. ¹

The fact that the numerical values of the Georgian characters inscribed on the various denominations of the Russo-Georgian series corresponded to their value on the Persian dīnār scale was pointed out a century ago by M.-F. Brosset.² This inescapable truth has since been obscured by patriotic Georgian historians, unwilling it would seem to accept this evidence of Georgia's dependence on the Persian monetary system. A. A. Tsagareli, for example, thought that the numerical values expressed by the letters on the Russo-Georgian coins were in Georgian p'uli.³ This is obviously wrong when it is remembered that the single p'uli, worth five Persian dīnārs, bears the letter "E", value 5, and not the equivalent of the figure 1, which would be the letter "A".

More recently, Professor I. Javakhishvili lent his authority to an equally untenable theory, which gained currency by being summarized in Dr. Joseph Karst's excellent summary of Georgian numis-

¹ Much of this information is taken from Rabino, *Coins of the Shaks*, pp. 12-18 and Table II. It should be noted that this dīnār scale continued in operation in Persia until 1932, when it was edicted that the dīnār was to be the one thousandth part of the tūmān.

² *Introduction à l'Histoire de la Géorgie*, pp. CLXXXVI-CLXXXVIII.

³ Grand-Duke Georgy Mikhailovich, *Russkie monety... dlya Gruzii*, p. III.

matic history.¹ According to Javakhishvili, the basis of the Georgian monetary system was not the *dinār*, but half a drachm weight of copper. This theory is based on a remark of Dr. J. Güldenstädt of the Russian Academy of Sciences, who visited Georgia in 1771 and observed that the Georgian copper *p'uli* weighed $2\frac{1}{2}$ drachms. As the *p'uli* in the Russo-Georgian series bore the letter "E" for 5, Javakhishvili assumed that the basic unit was a fifth of this coin's weight in copper (i.e. $\frac{1}{5}$ drachm or 1.86 gr.)

The objections to this system may be summarized as follows:

1) It confuses the issues of weight and denomination. No permanent monetary system could have been established in Georgia on a weight basis, as the weights of the various denominations fluctuated from time to time to suit the fiscal policy of the moment. One could as well weigh a U.S. cent of 1953 and conclude that the American monetary system was permanently based on the unit of 3.05 grams of copper.

2) Georgia was on a silver and not a copper standard. Even when silver ceased to be coined during the silver famine of the 12th and early 13th centuries, Queen T'amar's coppers are labelled "Vetskhli," i.e. silver pieces, confirming that they were minted to take the place of silver.

3) Professor Javakhishvili's theory ignores the fact that the very names of many Georgian units of currency are taken from the Persian. The large copper, with its value expressed by the letter "K", for 20, is called *bisti* in Georgian because it corresponds to the Persian *bistī*, which signifies "coin of 20," so called because it was worth 20 *dinārs*. "Uzalt'uni," the Georgian word for a half-abazi, labelled in the Russo-Georgian series with the letter "R", equalling 100, is the Perso-Turkish *yüz-ältün*, which means one hundred *ältün* or *dinārs*. Georgian acquaintances confirm that this term is still used in popular parlance, and that the phrase "two abazi and an uzalt'uni"

¹ I. Javakhishvili, "K'art'uli sap'as-sazomebis mtsodneoba anu numizmatika," in the journal *Chveni metsniereba*, Tiflis, 1924; Karst, *Précis de numismatique géorgienne*, pp. 21-23. It may be observed in parentheses that Professor Javakhishvili's contributions in the numismatic field, which lay outside his main interests, were not wholly happy. It is to be regretted that he failed to see the value of Pakhomov's *Monety Gruzii*, to which he devoted some ten pages of largely unjustified adverse criticism in the journal *Khristiansky Vostok* for 1912.

will be heard in Georgia to this day, instead of the term fifty copecks or half a rouble being employed. A rouble, furthermore, was called "minalt'uni" in Georgian because mīn-āltūn or bīn-āltūn was used in Safavi Persia as a synonym for hazār dīnār, or one thousand dīnārs or āltūn, equivalent to one Russian rouble.¹

4) Professor Javakhishvili's calculation of the weight of the Georgian p'uli seems inaccurate in itself. The German or apothecary's drachm which Gūldenstädt, a German doctor and chemist, was using in his computation weighs 3.73 grams. Gūldenstädt's "two and a half drachms" were thus equivalent to 9.32 grams. This is the weight, not of the single, but of the double p'uli of Erekle's reign, as may be seen from the examples described in the previous chapter. The double p'uli in the Russo-Georgian series bore the letter "I" for 10. The theoretical single unit of Georgian currency, which Javakhishvili refused to recognize as the dīnār, weighed about 1770 not a half, but a quarter drachm of copper (i.e. 0.93 gr.)

Professor Javakhishvili's system was challenged by S. Kakabadze in the Tiflis *Bulletin Historique*.² It is based on a series of misconceptions, and must be set aside in favour of the interpretation proposed by Brosset, based on the Persian dīnār scale to which the Georgian currency had been linked during the seventeenth and eighteenth centuries.³

Count Musin-Pushkin intended at one point that the unit of the copper series should indeed be the Georgian p'uli itself, and gave instructions that the bisti should be numbered 4, the double p'uli 2, and the single p'uli 1.⁴ This system was not put into operation.

There exists a rare trial proof of the 1804 abazi struck at the Imperial St. Petersburg mint with the letter 3, "K", numerical value 20, instead of "S" for 200.⁵ This represents an abortive attempt to express the coin's value in copecks, and was not proceeded with.

¹ See Rabino, *Coins of the Shahs*, p. 42, and Table IV: Value Iranian coins would thus have in Foreign currencies.

² Saistorio Moambe, II, 1924, pp. 282-88.

³ That the Georgian local accounting system was based well into the 19th century on this scale is clearly shown by the table of monetary equivalents of letters of the Georgian alphabet given by the Georgian lexicographer D. Chubinov (Chubinashvili) in his *Dictionnaire Géorgien-Russe-Français*, St. Petersburg, 1840, p. III.

⁴ Grand-Duke Georgy Mikhailovich, p. 8.

⁵ Grand-Duke Georgy Mikhailovich, No. 2.

The Russian letters which appear at the foot of the obverse of the silver issue only are the initials of the mint-masters at Tiflis, viz:

П. З. — Peter Zaytsev	(1804–1806)
А. К. — Aleksey Karpinsky	(1806–1824)
А. Т. — Alexander Trifonov	(1810–1831)
В. К. — Vasily Kleymenov	(1831–1833) ¹

The Grand-Duke Georgy Mikhailovich published statistics showing the quantities of each denomination struck each year. These particulars are summarized in the *Courrier Numismatique* for March, 1932, No. 27.

The silver pieces have oblique braided (slant-milled) edges. The copper are milled in both directions, forming a lattice pattern.²

The dates are indicated as follows:

1804	ჩყდ	1819	ჩყიო
1805	ჩყე	1820	ჩყკ
1806	ჩყვ	1821	ჩყკა
1807	ჩყზ	1822	ჩყკბ
1808	ჩყმ	1823	ჩყკგ
1809	ჩყთ	1824	ჩყკდ
1810	ჩყი	1826	ჩყკვ
1811	ჩყია	1827	ჩყკზ
1812	ჩყიბ	1828	ჩყკმ
1813	ჩყივ	1829	ჩყკთ
1814	ჩყიდ	1830	ჩყელ
1815	ჩყიე	1831	ჩყელა
1816	ჩყივ	1832	ჩყელბ
1817	ჩყიზ	1833	ჩყელგ
1818	ჩყიმ		

¹ Grand-Duke Georgy Mikhailovich, pp. 45–48; F. Kraumann, "Gruzinské mince za carského Ruska," in *Numismatické Listy*, III, No. 3, Prague, 1948, p. 44; *Courrier numismatique*, VI, No. 27, 1932, pp. 12–13.

² Cf. D. Elliott Smith, "Coin Edges," in *The Numismatist*, December, 1943, pp. 998–1002.

The examples of the series in the ANS collection are as follows:

111. Double abazi Tiflis

Obv. ტფილისი Tp'ilisi (Tiflis)

Above, mural crown. Below, palm and olive branch, crossed *en sautoir*.

Rev. უ U = 400

ქართული K'art'uli (Georgian)

თეთრი t'et'ri (white, i.e. silver)

Date: 1804, 1809, 1821, 1827, 1830, 1831, 1833.

Initials of Russian mint-master.

℞ 23–25 mm. 5.76–6.46 gr. PLATE XV, 1–2.

A complete set of illustrations is given in the Grand-Duke Georgy Mikhailovich's definitive work. See also Langlois, *Essai*, pp. 129–33; Karst, *Précis de numismatique géorgienne*, pp. 58–60, Pl. X.

112. Abazi Tiflis

Design as Double Abazi, but Rev., above: ზ S = 200. Date: 1821, 1831.

℞ 20 mm. 3.18 gr. PLATE XV, 3.

113. Half abazi Tiflis

Design as Double Abazi, but Rev., above: რ R = 100.

Date: 1823, 1828.

℞ 16 mm. 1.51–1.54 gr. PLATE XV, 4.

114. Bisti Tiflis

Design as Double Abazi, but mint-masters' initials omitted on copper denominations. The word "t'et'ri" on the Rev. is replaced by "P'uli" (ფული), signifying copper money.

Rev., above: კ K = 20.

Date: 1810.

℞ 31 mm. 15.80–16.52 gr. PLATE XV, 5.

115. Double p'uli Tiflis

As Bisti, but Rev., above: ი I = 10.

Date: 1805, 1808.

℞ 25–26 mm. 7.24–7.92 gr. PLATE XV, 6.

116. P'uli Tiflis

As Bisti, but Rev., above: Ⴃ E = 5.

Date: 1806.

Æ 20 mm. 3.99 gr.

PLATE XV, 7.

The running expenses of the Tiflis mint as well as technical considerations of a fiscal character soon caused the Russian Finance Ministry to press for its closure. In 1824, however, the Emperor Alexander signified his desire that it should be maintained in operation. Under Nicholas I, the Council of State finally decided in 1832 to recommend its suppression as soon as its current stocks of silver were exhausted. Double abazi were struck until February, 1834, though still bearing the date 1833, and the mint's operations then came to an end.¹

Official reports show that these Russo-Georgian coins continued to circulate for many years after the closure of the Tiflis mint, as well as the old abazi of Erekle's time and various Persian and Turkish coins in traditional use. A Georgian acquaintance from Ratcha in Western Georgia states, for example, that the pârâ was common there in his youth. Until the 1917 Revolution, however, the official currency was that of the Russian Empire.

¹ Grand-Duke Georgy Mikhailovich, pp. IV-V; further documents on the Tiflis mint and related questions of Russian financial policy in Georgia are to be found in the same author's *Monety Tsarstvovaniya Imperatora Nikolaya I*, St. Petersburg, 1890, Nos. 91, 94, 104, 122, 131, 169, 271, 294, 301.



LIST OF GEORGIAN MINT TOWNS

<i>Town</i>	<i>Period of mint's operation</i>
AKHALTSIKHE	Mongol and Trapezuntine periods
DIOSCURIAS (SUKHUM)	Classical; 14th century
DMANISI	Mongol
K'UT' AIS	Intermittently, 11th century onwards
PHASIS	Classical (? mint for coins of Colchis?)
QARĀ-AGHĀCH (QARAGHAJI)	Mongol
TIFLIS	6th century to Tsarist period

BIBLIOGRAPHY

a) General

- ALLEN, W. E. D., *A History of the Georgian People*, London, 1932.
- BARTHOLOMAEI, General J. DE, *Lettres Numismatiques et Archéologiques relatives à la Transcaucasie*, St. Petersburg, 1859.
- BERDZENISHVILI, N., JAVAKHISHVILI, I., and JANASHIA, S., *Sak'art'velos istoria*, I, Tiflis, 1943.
- BROSSET, M.-F., "A propos du livre intitulé: Essai de Classification des Suites Monétaires de la Géorgie, par M. Victor Langlois," in *Mélanges Asiatiques*, IV, St. Petersburg, 1863.
- , *Histoire de la Géorgie, depuis l'Antiquité jusqu'au XIXme siècle*, St. Petersburg, 1849–58.
- , *Rapport sur l'ouvrage intitulé Numizmaticheskie Fakty Gruzinskogo Tsarstva; et Revue de numismatique géorgienne*, St. Petersburg, 1847.
- DROUIN, EDMOND, *Numismatique géorgienne*, 1861, in vol. II of the manuscript *Numismatique Orientale* in the A.N.S. library.
- JAP'ARIDZE, PRINCE, "Gruzinsky numizmat Kn. Mikhail Petrovich Barataev," in *Letopis' Gruzii*, ed. B. Esadze, Tiflis, 1913.
- JAVAKHISHVILI, IVANE, "K'art'uli sap'as-sazomebis mtsodneoba anu numizmatika-metrologia," in *Chveni metsniereba*, 1–2, Tiflis, 1924 (Review by S. Kakabadze in *Saistorio Moambe*, II, Tiflis, 1924).
- KAPANADZE, DAVID G., *K'art'uli numizmatika*, Tiflis, 1950.
- KARST, JOSEPH, *Précis de numismatique géorgienne*, Paris, 1938 ("Publications de la Faculté des Lettres de l'Université de Strasbourg," fasc. 81).
- LANGLOIS, VICTOR, *Essai de Classification des Suites Monétaires de la Géorgie, depuis l'Antiquité jusqu'à nos jours*, Paris, 1860.
- , *Numismatique de la Géorgie au Moyen Age*, Paris, 1852.
- , "Supplément à l'essai de classification des suites monétaires de la Géorgie, depuis l'antiquité jusqu'à nos jours" (*Revue de la Numismatique Belge*, 1861).
- PAKHOMOV, E. A., "Kak otrazhalis' istoricheskie sobytiya na monete Gruzii," in *Letopis' Gruzii*, ed. B. Esadze, Tiflis, 1913.

- , *Monetnye klady Azerbaydzhana i Zakavkaz'ya*, fasc. 1 ("Trudy Obshchestva Obsledovaniya i Izucheniya Azerbaydzhana," No. 3, Baku, 1926). — fasc. 2, Baku, 1938. — fasc. 3, Baku, 1940. — fasc. 4, Baku, 1949. (Titles of later fascs. vary slightly).
- , "Monety Gruzii, chast' I (domongol'sky period)," in *Zapiski Numizmaticheskogo Otdeleniya Imp. Russkogo Arkheologicheskogo Obshchestva*, I, fasc. IV, St. Petersburg, 1910.
- VALENTINE, W. H., *Modern Copper Coins of the Muhammadan States*, London, 1911.
- WAKHUSHT, PRINCE, *Description géographique de la Géorgie*, trans. and ed. Brosset, St. Petersburg, 1842.

b) Classical Period

- BOLTUNOVA, A. I., "K nadpisi IOSPE, II, 400," in *Vestnik Drevney Istorii*, No. 1, 1954.
- GASSIEV, A. A., *Opisanie ob'yasnitel'noe drevne-grecheskikh i rimskikh monet sobrannykh v Zakavkaz'i v 1879-89 gg.*, Tiflis, 1890.
- GAYDUKEVICH, V. F., *Bosporskoe Tsarstvo*, Moscow-Leningrad, 1949.
- HEAD, BARCLAY V., *Historia Numorum, a Manual of Greek Numismatics*, new ed., Oxford, 1911.
- KAPANADZE, D. G., "Novye materialy k izucheniyu staterov tsarya AKI," in *Vestnik Drevney Istorii*, No. 1, 1948.
- , "O dostovernosti imeni, vybitogo na statere Basilevsa Aki," in *Vestnik Drevney Istorii*, No. 1, 1949.
- , "O drevneyshikh zolotyykh monetakh Gruzii," in *Vestnik Drevney Istorii*, No. 3, 1949.
- , "O naznachenii monet tak nazyvaemoy 'varvarizovannoy' chekanki, nakhodimykh na territorii Gruzii," in *Vestnik Drevney Istorii*, No. 1, 1953.
- , "Zametki po numizmatike drevney Kolkhidy," in *Vestnik Drevney Istorii*, No. 3, 1950.
- KHARKO, L. P., "Sushchestvoval li tsar' "Ακης?" in *Vestnik Drevney Istorii*, No. 2, 1948.
- MAKALAT'IA, S. I., "Arkheologicheskie nakhodki v selenii Akhrisi (Kartli)," in *Vestnik Drevney Istorii*, No. 3, 1951.
- , "1920-24 ds. ds. Sak'art'veloshi aghmochenili zogiart'i nekropolis dat'arighebisat'vis," in the Tiflis Museum *Moambe*, IV, 1927-28.
- , "Kolkhuri didrak'ma," in the Tiflis Museum *Moambe*, VII, 1933. (Also in English translation: "Colchian Didrachmas," in *Georgica*, I, Nos. 2-3, London, 1936.)

- MAKALAT'IA, S. I., "Novy klad kolkhidskikh monet," in *Vestnik Drevney Istorii*, No. 4, 1939.
- MINNS, SIR E. H., *Scythians and Greeks*, Cambridge, 1913.
- PROKESCH-OSTEN, BARON A., "Description de quelques médailles grecques," in *Revue Numismatique*, 1860.
- RETOVSKY, O., "Drakhma Aristarkha Kolkhidskogo iz sobraniya Imp. Ermitazha," in *Trudy Moskovskogo Numizmaticheskogo Obshchestva*, III, Moscow, 1905.
- SKUDNOVA, V. M., "Nakhodki kolkhidskikh monet i pifosov v Nimfee," in *Vestnik Drevney Istorii*, No. 2, 1952.
- ZOGRAF, A. N., *Antichnye Monety*, Moscow, 1951.
- , "Antichnye zolotye monety Kavkaza," in *Izvestiya Gos. Akademii Istorii Material'noy Kul'tury*, fasc. 110, Moscow-Leningrad, 1935.
- , "Rasprostranenie nakhodok antichnykh monet na Kavkaze," in *Gosudarstvennyy Ermitazh: Trudy Otdela Numizmatiki*, I, Leningrad, 1945.

c) Medieval Kingdom

- ABRAMISHVILI, TAMAR N., "Akhali sakhe Kirmaneulisa," in the Tiflis Museum *Moambe*, XVIB, 1950.
- , "Ori Davit'is moneta," in the Tiflis Museum *Moambe*, XVIB, 1950.
- BARATAEV, PRINCE MIKHAIL PETROVICH: *Numizmaticheskie fakty Gruzinskogo tsarstva*, St. Petersburg, 1844.
- BARTHOLOMAEI, GENERAL J. DE, "Lettre adressée à Monsieur Soret sur des monnaies koufiques inédites, rapportées de Perse," in *Revue de la Numismatique Belge*, 1859.
- , "Seconde lettre à Monsieur F. Soret, sur des monnaies koufiques inédites," in *Revue de la Numismatique Belge*, 1861. — "Troisième lettre..." *ibid.*, 1862. — "Quatrième lettre..." *ibid.*, 1864.
- BLAKE, R. P., "The Circulation of Silver in the Moslem East down to the Mongol epoch," in *Harvard Journal of Asiatic Studies*, II, 1937.
- , "Some Byzantine accounting practices illustrated from Georgian sources," in *Harvard Studies in Classical Philology*, LI, 1940.
- BROSSET, M.-F., "Dissertation sur les Monnaies Géorgiennes," in *Journal Asiatique*, 1835.
- BYKOV, A., "Gruzinskie monety XII-XIII vv.," in *Pamyatniki epokhi Rustaveli*, Leningrad (Hermitage), 1938.
- DROUIN, EDMOND, *Dynasties Mongoles*, 1861, in vol. IV of the manuscript *Numismatique Orientale* in the ANS library.

- , "Notice sur les Monnaies Mongoles, faisant partie du *Recueil des Documents de l'Époque Mongole* publié par le Prince Roland Bonaparte," in *Journal Asiatique*, 1896.
- FRAEHN, C. M., "De Il-Chanorum seu Chulaguidarum nummis," in *Mémoires de l'Académie Impériale des Sciences de Saint-Petersbourg*, 6me. série: Sciences Politiques, Histoire et Philologie, II, 1834.
- GHALIB, ISMĀ'IL, *Taqvīm-i Meskūkāt-i 'Othmāniyeh*, Constantinople, 1307.
- HOWORTH, SIR HENRY H., *History of the Mongols from the 9th to the 19th century*, part III: *The Mongols of Persia*, London, 1888.
- KAKABADZE, SARGIS, "P'ulis gadzvirebis da gaiap'ebis sakit'khist'vis Sak'art'veloshi me-13-17 sauk.," in *Saistorio Moambe* (*Bulletin Historique*), II, fasc. I, Tiflis, 1925.
- , "Sap'asis istoriisat'vis Sak'art'veloshi," in *Saistorio Moambe*, II, fasc. I, Tiflis, 1925.
- , "Sasiskhlo sigelebis shesakheb," in *Saistorio Moambe*, I, fasc. II, Tiflis, 1924.
- KAPANADZE, DAVID G., "Giorgisa da T'amaris sakhelit' motchrili p'ulis shesakheb," in the Tiflis Museum *Moambe*, XIIB, 1944.
- , "X saukunis T'biluri drama Ali ben Jap'arisa," in the Tiflis Museum *Moambe*, XIIB, 1944.
- , "XV saukunis k'art'uli p'ulis Goris gandzi," in the Tiflis Museum *Moambe*, XB, 1940.
- , "Neskol'ko zamechany o Gruzino-Sasanidskikh monetakh," in *Soobshcheniya Akademii Nauk Gruzinskoy SSR*, VI, No. 1, 1945.
- , "O mednoy monete s imenami Georgiya i Tamary," in *Kratkie soobshcheniya Instituta Istorii Material'noy Kul'tury*, fasc. XXIV, 1949.
- , "Tak nazyvaemye Gruzinskie podrazhaniya Trapezundskim aspram," in *Vizantiysky Vremennik*, tom. III, 1950.
- , "Zogiert'i gaurkveveli k'art'uli p'ulis dat'arighebisat'vis," in the Tiflis Museum *Moambe*, XIB, 1941.
- , "Zogiert'i terminis shesakheb k'art'ul numizmatikashi," in the Tiflis Museum *Moambe*, XIIB, 1944.
- LANE-POOLE, STANLEY, *Catalogue of Oriental Coins in the British Museum*: vol. VI: *The Coins of the Mongols*, London, 1881. — VIII: *The Coins of the Turks*, London, 1883.
- LANGLOIS, VICTOR: "Lettre à M. R. Chalon sur une monnaie d'argent inédite de Bagrat III, roi des Aphkhazes," in *Revue de la Numismatique Belge*, 1864.
- LOMOURI, T'AMAR N., "Akhaltsikhis zarap'khana," in the Tiflis Museum *Moambe*, XIIB, 1944.

- LOMOURI, T'AMAR N., "XIII saukunis k'art'uli p'ulis sakit'kht'a gamo," in the Tiflis Museum *Moambe*, XB, 1940.
- , "P'uli Shot'a Rust'avelis epok'ashi," in *Shot'a Rust'avelis epok'is materialuri kultura*, ed. I. Javakhishvili, Tiflis, 1938.
- , "T'amaris p'ulebis gandzi," in *Tp'ilisis sakhelmdsip'o Universitetis shromebi* (*Travaux de l'Université d'État de Tiflis*), series 1, vol. I, 1936.
- MARKOV, A. K., *Inventarny Katalog Musul'manskikh Monet Imperatorskogo Ermitazha*, St. Petersburg, 1896. (With four supplements).
- , *Katalog Dzhelairidskikh monet*, St. Petersburg, 1897.
- MINORSKY, V., *Studies in Caucasian History*, London, 1953.
- , *Tadhkirat al-Mulūk, a Manual of Safavid Administration*, London, 1943.
- , "Tiflis," in the *Encyclopaedia of Islām*.
- POOLE, R. S., *Catalogue of Coins of the Shahs of Persia in the British Museum*, London, 1887.
- RABINO DI BORGOMALE, H. L., *Coins, Medals and Seals of the Shāhs of Irān, 1500–1941*, London, 1945.
- , *Album of Coins, Medals, and Seals of the Shāhs of Irān (1500–1948)*, Oxford, 1951.
- RASHĪD AL-DĪN, *Sbornik Letopisey*, trans. Khetagurov, Smirnova and Arends, vols. I, bks. 1 and 2, and III, Moscow-Leningrad, 1946–52.
- RETOWSKI (Retovsky), O., "Die Münzen der Komnenen von Trapezunt," in *Numizmaticheskyy Sbornik, izdanie Moskovskogo Numizmaticheskogo Obshchestva*, I, Moscow, 1911.
- SPULER, B., *Die Mongolen in Iran: Politik, Verwaltung und Kultur der Ilchanzeit, 1220–1350* (Iranische Forschungen, I), Leipzig, 1939.
- TOUMANOFF, PRINCE C., "Iberia on the eve of Bagratid rule, Excursus C: Coins of the Princes of Iberia," in *Le Muséon*, LXV, Louvain, 1952.
- TSERET'ELI, G.: "Dmanisis monetis gamo," in *Literaturuli dziebani*, vol. II, Tiflis, 1944.
- WROTH, W., *Catalogue of the Coins of the Vandals, Ostrogoths and Lombards and of the Empires of Thessalonica, Nicaea and Trebizond in the British Museum*, London, 1911.

d) Modern Period

- CHUCHIN, F. G.: *Bumazhnye denezhnye znaki*, Moscow, 1924.
- DENIS, C., *Catalogue des monnaies émises sur le territoire de la Russie (1914–25)*, Paris, 1927.
- GAVELLE, J., "Monnaies russes frappées pour la Géorgie," in *Courrier Numismatique*, VI, No. 27, 1932.

- GRAND-DUKE GEORGY MIKHAILOVICH, *Russkie monety chekanennye dlya Prussii (1759-1762), Gruzii (1804-1833), Pol'shi (1815-1841), i Finlyandii (1864-1890)*, St. Petersburg, 1893.
- KRAUMANN, F., "Gruzínské mince za carského Ruska," in *Numismatické Listy*, III, No. 3, Prague, 1948.
- LOHMEYER, A., "La monnaie de nécessité en Russie, 1914-1923," in the journal *Aréthuse*, fasc. 10, 1926.
- MEDAL COLLECTOR, THE, "Georgia: Order of Saint Tamara (from the collection of A. A. Miller)," February, 1952.
- PETROV, V. I., *Katalog Russkikh monet*, 2nd. ed., Moscow, 1899.

Cartographical Note

The map showing Georgia and neighbouring areas in the late 17th century is a section of H. Laillot's map, "Estats de l'Empire du Grand Seigneur des Turcs, en Europe, en Asie, et en Afrique, divisé en tous ses Beglerbeglicz, ou Gouvernements, où sont aussi remarqués les Estats qui luy sont Tributaires, dressé sur les plus nouvelles relations à l'usage de Monseigneur le Duc de Bourgogne." It is reproduced here by kind permission of the map's owner, Prince Archil Gourielli.

GENERAL INDEX

Names of Georgian mint towns are printed in italics.

- Abagha Khan, 41-5, 51, 78-9
 abazi, 96, 109-11, 114-5, 118-24
 'Abbās the Great, Shah of Persia, 2, 90
 'Abbās II, Shah of Persia, 92-3
 'Abbās III, Shah of Persia, 102
 'abbāsi, 90-4, 96, 99-104, 107-10, 119
 'Abbāsīd caliphs, 12-18, 22
 'Abdullāh Pāshā Köprülü, seraskier, 98
 abjad chronograms, 103
 Abkhazia, 6, 8-9, 11, 17-18, 32, 81, 87, 89
 Abū'l-Hayjā', emir of Tiflis, 16
 Abū Sa'īd Bahādur Khan, 60-7, 79-80, 86
 Achaemenid empire, 9
 Afghans, 93, 95
 Āghā Muḥammad Khān Qājār, Shah of Persia, 110
 Aghbugha, atabag of Samtskhe, 86-7
 Aḥmad III, Sultan of Turkey, 98-101
 Aḥmad Jalā'ir, Shaykh, 76
 Aḥmad Tegüder Khan, 45-6, 79
 Akes, supposed king of Colchis, 10
Akhaltsikhe, 2, 49, 54-6, 77, 83, 86-7, 125
 Akhtala, 110
 'Alā'yah, 71
 Alazan, river, 73
 alek'siati, 32
 Alexander the Great, 1, 9, 11
 Alexander I, King of Georgia, 81, 89
 Alexander I, Tsar of Russia, 115, 117, 124
 Alexius Comnenus, Byzantine emperor, 32
 Alexius II, Emperor of Trebizond, 85
 'Alī, the Caliph, 58, 73
 'Alī Rizā, the Imam, 108
 'Alī b. Ja'far, emir of Tiflis, 14-16
 almanacs, Persian, 66
 Alp Arslān, Seljuk Sultan, 16
 alphabet, Georgian, ix-x
 altūn, 99, 120
 Alūsh Bek, *see* Ulūsh Bek
 amān, 17
 Amīr al-Ulūs, 36
 Amīr al-Umarā', 36
 Anatolia, 1, 22, 37, 71, 85, 110
 Ani, 20
 Anūshirvān Khan, 69-73, 77, 80
 Arabs, 1-2, 5, 12, 22
 Ardabil, 72
 Arghun Khan, 45-8, 79
 Arinchīn Tūrjī, *see* Gaikhatu Khan
 Aristarchus, dynast of Colchis, 11
 Armenia, 20, 36-7, 110
 Arpā Khan, 67, 80
 Artemis, 8
 Ashraf, Melik, 68-9, 75
 Asia Minor, 71-2
 aspers, 56, 61, 81-7
 Atabags of Samtskhe, 55, 86
 Atchara, 9
Āthār al-bilād, 32
 Athena, 10
 Athos, Mount, 32
 Augustus, Emperor of Rome, 1, 11
 autonomous coppers, 91-2, 95
 Avars, 110
 Azerbaijan, 1, 41, 68, 75
 ibn al-Azraq, 16-17
 Baghdad, 14, 20, 66, 75
 Bagrat III, King of Georgia, 18-19
 Bagrat IV, King of Georgia, 19-20
 Bagrat V, King of Georgia, 76
 Bagrat VI, King of Georgia, and II of Imeret'i, 83, 85, 88

- Bagrat VII, King of Georgia, 90
 Bagratid dynasty, 4, 18-33, 39, 81, 89, 92, 95-7, 106-16
 Baidu Khan, 48
 Baiju Khan, 36
 Bak'ar, King of Georgia, 96-7, 116
 Baltic sea, 22
 Bārākā Khan, 73
 Barataev, Prince M.P., 3, 38, 84, 116
 barbarian imitations, 86
 Bartholomaei, General J. de, 3, 55-6, 72, 76, 84
 ibn Batūṭa, 71
 Bek'a Jaqeli, atabag of Samtskhe, 55, 86
 Berke Khan, *see* Bārākā Khan
 beshlik, 99-100
 bezants, 32
 Bichui Khan, *see* Baiju Khan
 bird, 29
 Birdi-Beg Khan, 75-7
 bisti, 96, 112-14, 118-24
 Black Sea, 1, 6, 11
 Black Sheep Turcomans, 89
 blood money (wergeld), 82, 85, 87
 Bogolyubskoy family, 23, 26
 Boston, Museum of Fine Arts, 8
 botinati, 22, 31-2
 British Museum, 9, 29
 Brosset, M.-F., 3, 119, 121
 Brown, Vernon L., 27
 Budagov, L., 36
 buffalo, 95
 Bukay, Mongol vazir, 46
 Bulgar kingdom, 22
 bull's head, 6, 8-9
 Byzantine empire, 1, 19-20, 31-2, 39, 86
 Cabinet des Médailles, Paris, 29, 76
 Caesar, 20
 Caliphate, 1-2, 12-17, 20, 22
 Caliphs, Four Orthodox, 57, 62-4, 66-70, 73-4
 Caucasus, 49
 Central Asia, 12, 28
 'Champion of the Messiah,' 24, 26, 30-1
 Chase National Bank, 27
 Chelebi-zāde, Küchük, 98
 Chersonese, 7
 China, 22, 54
 Christian cross, 12, 27, 45-50, 88
 chronology, problems of, 4-5, 64-6, 114
 Chūpān, Amīr, 60
 Chūpānid dynasty, 68
 Cilicia, 37
 Clark, W. L., 20
 Clauson, Sir G., 51-4
 Cleaves, F. W., 45
 Codrington, O., 66
 Colchis, 1, 6-11, 117, 125
 Columbia University, vii
 Comnenian dynasty, 81-7
 Constantine the Great, 12
 Constantine X Dukas, Byzantine emperor, 32
 Constantine I, King of Georgia, 88
 Constantine II, King of Georgia, 88-9
 Constantinople, 32, 81, 98-100
 Contenau, G., 8
 copeck, 118-9, 121
 Cordier, H., 53-4
 Council of State, Russian, 124
 counterstamps, 25-7, 29, 112, 114
 crescent, 29
 cross-bow, 26
 crown, 112, 123
 Crusaders, 20, 32, 81
 Daghestan, 110
 Daidu, 41, 51
 Dali, Georgian goddess, 8
 damghah, 40
 Danubian Celts, 11
 dārūgha, 92
 David the Great, Duke of Tao, 18
 David the Builder, King of Georgia, 1, 17, 20, 22, 32, 38
 David V, King of Georgia, 20
 David Soslan, Consort of Queen T'amar, 26
 David Narin, King of Georgia, 20, 34, 36-9, 44, 47, 60, 77-8, 81
 David Ulugh, King of Georgia, 20, 34, 36-9, 42, 44, 55, 77-8
 David VIII, King of Georgia, 48-50, 56, 79
 David IX, King of Georgia, 67, 76

- David X, King of Georgia, 89
 David III, King of Kakhet'i, 73
 David, Prince-Regent of Georgia, 115-6
 Demna, Prince of Georgia, 20
 denarius, 1, 11
 denga, 119
 didrachm, 7-8
 Dimitri I, King of Georgia, 17, 20-1, 25
 Dimitri II, King of Georgia, 42-8, 60, 78-9
 dinar, 17, 21, 32, 96, 104, 111-12, 118-21
 Diocletian, Roman emperor, 85
 Dioscuri, caps of, 11
Dioscurias, 6, 11, 125
 dirhem, 2, 5, 12-18, 25, 31, 37, 39-52, 54, 57, 62-5, 69-70, 73-5, 86
Dmanisi, 37, 77, 125
 double dirhem, 59-68
 drachm, 9, 12
 dragon, 95
 drahkani, 32
 Drouin, E., 53
 ducat, 32
 Dsit'eldsqaro, 72-3
 dukamikhaylati, 32
 dukati, *see* ducat
 eagle, 2, 113-14
 Elizabeth Petrovna, Empress of Russia, 109
 Emirs of Tiflis, 1, 13-16, 60
 England, 85
 Erekle I, King of Georgia, 93, 95
 Erekle II, King of Georgia, 2, 106-14, 121, 124
 Erivan, 55, 90, 98-9
 Erzerum, 10, 36
 Eugenius, St., 82-7
 falcon, 21
 female head, 6-8
 Feuardent collection, 9
 Finance Ministry, Russian, 124
 fire-altar, 12
 fish, 29, 113-15
 Fogg Museum, Harvard, 83
 Forrer, R., 11
 fractional currency, 22
 Fraehn, C. M., 3, 44, 65
 fulūs, 91-2, 95, 106, 119
 Gaikhatu Khan, 48-9, 53, 79
 Ganja, 16, 34-5, 72, 98
 Garni, 28
 George, St., 85-7
 Georgian alphabet, ix-x
 Georgian chronology, 4-5
 Georgian Republic, 3
 Georgy Mikhailovich, Grand-Duke, 117, 122
 Ghālīb, I., 98-9
 Ghāzān Mahmūd Khan, 44, 48-56, 65, 77, 79, 86
 giorgauli, 61, 85, 87
 Giorgi II, King of Georgia, 20, 38
 Giorgi III, King of Georgia, 20-1, 23, 84
 Giorgi Bogolyubskoy, Consort of Queen T'amar, 23, 26
 Giorgi IV Lasha, King of Georgia, 26-7, 34, 39
 Giorgi V, The Brilliant, King of Georgia, 49-50, 55-6, 60-9, 76, 81, 85-7
 Giorgi VI, The Little, King of Georgia, 56, 60
 Giorgi VII, King of Georgia, 76, 88
 Giorgi VIII, King of Georgia, 85, 88
 Giorgi X, King of Georgia, 90
 Giorgi XI, King of Georgia, 93, 95
 Giorgi XII, King of Georgia, 2, 115-16
 Giorgi II, King of Imeret'i, 89
 globus cruciger, 83-4, 112-14
 Golden Fleece, 1, 117
 Golden Horde, 69, 73-7
 Gori, 88
 Gospels, Book of, 31
 Gray, R., 83
 Greek colonies in Georgia, 1, 6-11, 110
 Greenwell, Canon W., 8
 Gremi, 89
 Grose, S. W., 7
 Guaram I, Prince of Iberia, 12
 Güldenstädt, J. A., 120-1
 Guria, 7, 81, 89
 Güyük Khan, 34, 37

- Ḥasan Buzurg Jalā'ir, Shaykh, 68, 72, 75, 77, 80
 Ḥasan Kūchuk Chūpāni, 68–9, 72
 hazār dīnār, 119
 Head, Barclay V., 7
 Helios, 11
 hemidrachm, 6–9
 Hermitage collection, 11, 18
 hijra, 5, 66, 114
 al-Ḥillah, 66
 Hirsch, J., 7
 hoards, 4, 88
 Hormizd IV, Sasanian monarch, 12
 horse, 92
 horseman, galloping, 35–6
 hound, 35, 37
 ḥPags-pa script, 51–4
 hromanati, 32
 Hulagu Khan, 34, 41–2, 78
 Hulaguids, *see* Il-Khan dynasty
 hyperpera, 32

 Iberia in Transcaucasia, 1, 9, 12, 117
 Iberian (Iviron) monastery, 32
 Iconium, 34, 38
 idols, 32
 Iese, King of Georgia, 98
 Ikhshin, *see* Akhaltsikhe
 ikons, 85–6
 Il-Khan dynasty, 2–3, 41–81, 86
 Imām-Qūli-Khān, 73
 Imams, Twelve, 58–9, 108
 Imeret'i, 6–7, 9, 30, 47, 81, 89, 115
 Imperial, 119
 inflation, 3
 Iori, river, 73
 Iran, *see* Persia
 Isfahan, 2, 92, 95
 Islam, 1–2, 14, 21–2, 46
 Iviron monastery, 32

 Ja'far b. 'Alī I, emir of Tiflis, 13, 16
 Ja'far b. 'Alī II, emir of Tiflis, 16
 Ja'far b. Manṣūr, emir of Tiflis, 14
 Ja'farid emirs, 13–16, 18
 Jāhān-Tīmūr Khan, 68
 Jalā'irid dynasty, 68, 75–7, 80
 Jalāl al-Dīn, Shah of Khwārazm, 28–30, 34
 Jāni-Beg Khan, 69, 75–7

 Jaqeli family, 55
 Javakhet'i, 27
 Javakhishvili, I. A., 119–21
 Jesus Christ, 31
 Jews, 17
 John I, Emperor of Trebizond, 81
 John II, Emperor of Trebizond, 82–4, 87
 Jordania, N., 3
 Jujid dynasty, *see* Golden Horde

 kaanniki, 42–4, 78–9
 Kaikhusrau I, Sultan of Iconium, 38
 Kaikhusrau, King of Georgia, 95
 Kakabadze, S., 121
 Kakhet'i, 2, 9, 67, 71–3, 89–90, 95, 106, 110, 115
 Kapanadze, D. G., 4, 6, 9–11, 14, 23, 56, 61, 87–8
 von Karabaczek collection, 56
 Karakorum, 34, 36
 Karpinsky, A., 122
 Kars, 72
 Karst, J., 4, 119
 K'art'li, 2, 9, 18, 37, 39, 60, 89–95, 106, 110, 115
 Kerīm Khan Zend, 110
 Khanian era, 64–6, 80
 kharāj, 17
 Kharko, L. P., 10
 Khorāsān, 108
 Khubilay Khan, 41
 Khusrau-Mirzā, *see* Rostom
 khuṭba, 17
 Khwārazm, 28–9
 kirmaneuli, 82–7
 K'isiq, 73
 Kleymenov, V., 122
 kolkhidki, 6
 konstantinati, 32
 k'oronikon, 4–5
 kunyah, 15
 Kurds, 28
 Kuropalates, 18
 K'ut'ais, 9, 30, 34, 39, 83, 125
 Küyük Khan, *see* Güyük

 Lamas of Tibet, 48, 53
 lamb, 88
 Lamberti, Father A., 91

- Lane-Poole, S., 36, 65
 Langlois, V., 3, 38, 44, 48, 76, 84, 88, 111, 114
 Laurent, Father V., 86
 leaf, 113, 115
 Levan Dadiani, Prince of Mingrelia, 91
 Levant, 20, 89
 Lezghis, 110, 115
 Likhi hills, 81
 lion, 8-9, 91-2, 106
 lioness, 9
 Lomouri, T'amar, 4, 55, 89
 Lori, 88
 Luarsab, King of Georgia, 90
 Lysimachus, 1, 9-11
- maḥmādī, 93-4, 99-100, 102, 119
 Maḥmūd Chūpānī, 60
 Maḥmūd I, Sultan of Turkey, 98, 101
 Maḥmūd, Afghan conqueror, 93
 Makalat'ia, S., 8
 Maltese cross, 51
 Manazkert, 20
 manet'i, 119
 Mangu Khan, 39-41, 78
 Maṣṣūr b. Ja'far I, emir of Tiflis, 13-14, 16
 Maṣṣūr b. Ja'far II, emir of Tiflis, 16
 Manuel I, Emperor of Trebizond, 81-2
 Marāgha, 41, 72
 marchili, 119
 Markov, A. K., 76
 Mazdeism, 12
 Mediterranean, sea, 71
 Meḥmed Rāshid, 98
 Mesopotamia, 41
 metrology, 4
 Michael VII Dukas, Byzantine emperor, 32
 miḥrāb, 62, 69
 Miles, G. C., vii, 77
 Miletus, 6
 military standard, 26
 minalt'uni, 119, 121
 Mingrelia, 6-7, 81, 85, 89, 91
 minotaur, 8
 Mithradates Eupator, 11
 Möngke Khan, *see* Mangu
 Mongols, 2, 4, 22, 28, 34-81, 86, 125
 Mostras, C., 71
- Mtskhet'a, 16, 34
 Muḥammad the Prophet, 13-15, 17, 19, 35, 52, 57-8, 109
 Muḥammad Khan, 68, 72, 77, 80
 Muḥammad Khudābandeh, *see* Öljäitü
 Muḥammad ibn Salduq, 36
 Mukhran, 93-7
 Munich, State Coin Cabinet, 111
 Mūsā Khan, 68
 Musin-Pushkin, Count A., 117, 121
 Muslims, 17-18, 20, 22, 44, 49, 51, 56, 60, 89, 96, 109
 Muṣṭafā Pāshā, *see* Iese
 al-Muṭī' li'llāh, Caliph, 14
- Nādir Shah, 2, 101-8
 nādīrī, 104-5
 Nakhchevan, 72
 Nicephorus Botaniates, Byzantine emperor, 31-2
 Nicholas I, Emperor of Russia, 124
 Nike, 4
 Nino, St., 12
 nishān, of Ghāzān Khan, 53-4
 nobilissimus, 19
 nomisma, 31-2
 North Caucasus, 1
 Nūshirvān, *see* Anūshirvān
- Ögödei Khan, 35-6
 Öljäitü Khan, 56-60, 71-2, 77, 79
 olive branch, 123
 'Omar Khan, 110
 onluq, 99-100
 Orbeliani, Papuna, 107
 Ossetia, 26
 Ottoman empire, 2, 55, 73, 89, 98-102
- paizas, 51-4
 Pakhomov, E. A., 3-4, 7, 12, 23, 25-6, 29, 41-2, 55, 72, 76
 palm, 123
 pārā, 100, 124
 Paschal cycle, 4
 Passepa script, *see* ḥP'ags-pa
 Paulsen, R., 11
 peacock, 96-7, 116
 Pegasus, 9
 perpera, 32
 Peking, 54

- Persia, 2, 9, 14, 22, 28, 34, 41, 60, 72-5, 89-96, 98-102, 106, 108, 110, 115, 118-21, 124
 Persian Cossack Brigade, vii
Phasis, river and port, 6, 125
 Philadelphia, University Museum, 71
 phoenix, 102
 pigs, 17
 Pompey, 11
 Pontus, 11
 potonati, 32
 Prokesch-Osten, Baron, 10
 p'uli, 95, 106, 112-15, 118-24
 pül-i-siyâh, 112
- al-Qâdir, Caliph, 14-16
 Qandahâr, 95
Qarâ-Aghâch, 2, 67, 71-7, 125
 Qarabâgh, 24
Qaraghaji, *see* *Qarâ-Aghâch*
 Qaramânid dynasty, 71-2
 qazanuri, 49, 86
 qâzbegî, 95, 112, 119
 Qazvin, 49
 Qipchaq, 75
 Qul Hîşâr, 71
 Qur'ân, 13-15, 58, 61-2, 109, 115
 Qwarqware Jaqeli, Atabag of Samtskhe, 56
- Radlov, V. V., 36
 Rashîd al-Dîn, 53
 Ratcha, 124
 Retovsky, O., 83, 85
 rials, Spanish, 91
 Rion, river, *see* *Phasis*
 Robinson, E. S. G., 7
 romanati, 32
 Romanus Diogenes, Byzantine emperor, 20, 32
 Rome, 1, 11
 Rostom, King of Georgia, 92
 rouble, 119-21
 Rum (Anatolia), Seljuks of, 36
 Russia, Russians, 2-3, 5, 18, 22, 81, 89, 98, 109-10, 114-24
 Rust'aveli, Shot'a, 22
 Rusudan, Queen of Georgia, 4-5, 21-2, 25-36, 60
- Şafavî dynasty, 2, 73, 89-99, 102, 121
 Şafi I, Shah of Persia, 92
 Şafi II, Shah of Persia, *see* Sulaymân I
 St. Petersburg, 109, 121
 Salduqid dynasty, 36
 Sāmānid dynasty, 22
 Samtskhe-Saatabago, 49, 54-5, 86, 89
 Sargis I Jaqeli, Atabag of Samtskhe, 55
 Sargis II Jaqeli, Atabag of Samtskhe, 55-6
 Sasanian empire, 1, 12
 Sâti-Beg, Princess, 68, 80
 scales of justice, 112
 Scandinavia, 18, 22
 sceptre, 113-14
 scyphate nomisma, 32
 sebastos, 20
 Seljuks, 1, 20, 22, 34, 36
 sequin, 89, 99
 shâhî, 93-6, 100, 104, 108, 119
 Shahnavaz, *see* Wakhtang V
 Shâhrukh, Shah of Persia, 107-8
 Shahs of Persia, 73, 90-7, 102-8
 shauri, 96, 115, 119
 shavi p'uli, 95, 112
 Shî'a pious formula, 56, 59, 108
 Shîrvân, Shîrvānshâhs, 24-5, 72, 89
 shishşad dînâr, 119
 Sighnaghi, 73
 Simon, Prince-Regent of Georgia, 95
 sişad dînâr, 104-5
 Skudnova, V. M., 7
 slaves, 89
 Solomon's seal, 35, 40, 83-4
 Soret, F., 3, 55
 Soviet Union, vii, 3
 Spanish currency, 91
 Starosselsky, General V., vii, 15
 stater, 1, 9-10
 Stephen I, Prince of Iberia, 12
 Stephen II, Prince of Iberia, 12
 stork, 35
 Sujuna, 85
Sukhum (Dioscurias), 6, 87, 125
 Sulaymân Khan, 68-9, 72, 77, 80
 Sulaymân I, Shah of Persia, 93
 Sultân Husayn, Shah of Persia, 93-5, 100, 102
 Sultân Ibrâhîm, Shah of Persia, 107-8

- Sultāniya, 56, 72
 sun, 91-2
 Sunni pious formula, 56, 59-70, 73-6, 98
 Suzdal, 23
 Svanet'i, 89
 'Sword of the Messiah', 20-1
 swords, 112
 Syriac, 32

 Tabriz, 35, 56, 69-72, 75, 98-9
 Ṭahmāsp-Qūli-Khān, *see* Nādir Shah
 al-Ṭā'ī 'lī'llāh, Caliph, 14, 16
 T'amar, Queen of Georgia, 1, 22-31, 81, 120
 Tamerlane, 2, 76, 88-9
 t'angi, 83
 t'angiri, 119
 Tao-Klarjet'i, 18
 Tauric Chersonese, 7
 T'eimuraz I, King of Georgia, 90
 T'eimuraz II, King of Georgia, 106-10
 T'eimuraz, Prince of Georgia, 112
 T'elavi, 73, 110
 t'elt'i, 119
 Terrien de la Couperie, 53
 tetradrachm, 9
 t'et'ri, 82-95, 123
 Theodora, Empress of Trebizond, 82
 thyrsos, 11
 Tibet, Tibetan, 48, 53
Tiflis, 1-4, 12-21, 28-72, 75-80, 89-117, 121-5
 Tiflis State Museum, 4, 9, 54-5, 88-9
 tiger, 106
 Trebizond, 56, 61, 81-7, 125
 Trifonov, A., 122
 Tsagareli, A. A., 119
 Tseret'eli, G., 55
 Tsitsianov, Prince P. D., 117
 tskhumuri, 87
 Tughā-Tīmūr Khan, 68
 tuḡhrā, 99-100, 103
 tuman, t'umani, 119
 Turkestan, 22

 Turkey, Turks, 2, 20, 36, 55, 72, 89-90, 98-102, 110, 124
 Uigur, 36, 44, 46
 Uljaitu, *see* Öljäitü
 ulus, 36
 Ulūsh Bek, i.e. Mongol viceroy, 35-6
 Umayyad caliphs, 12
 United States of America, 120
 Uwais Khan, 75
 uzalt'uni, 111, 119-20

 Wakhtang, *see* Wakhtang
 Venice, 89
 vetskhi (vertskhi), i.e. silver, 21, 29, 120
 Virgin Mary, 19-20, 39
 Volga, river, 22
 votoniati, 32

 Wakhtang II, King of Georgia, 47-8
 Wakhtang III, King of Georgia, 44, 49-51, 79
 Wakhtang IV, King of Georgia, 88
 Wakhtang V, King of Georgia, 92-3
 Wakhtang VI, King of Georgia, 85, 95-8
 Wakhusht, Prince of Georgia, 73
 Walker, J., vii
 Wamiq Dadiani, 87
 Warren collection, 8
 Wasiṭ, 66
 White Sheep Turcomans, 89
 Whittemore collection, 83
 Wroth, W., 83

 Yalvāch, 71
 Yule, Sir H., 53-4
 Yury Bogolyubskoy, *see* Giorgi
 yūz-āltūn, 111, 119-20

 Zakariyā al-Qazvinī, 32
 Zambaur, E. von, 66
 Zarafshān silver mines, 22
 Zaytsev, P., 122
 Zograf, A. N., 6

PLATES

I



CLASSICAL PERIOD (1-8); EMIRS OF TIFLIS (9-10);
BAGRAT III (11-12)

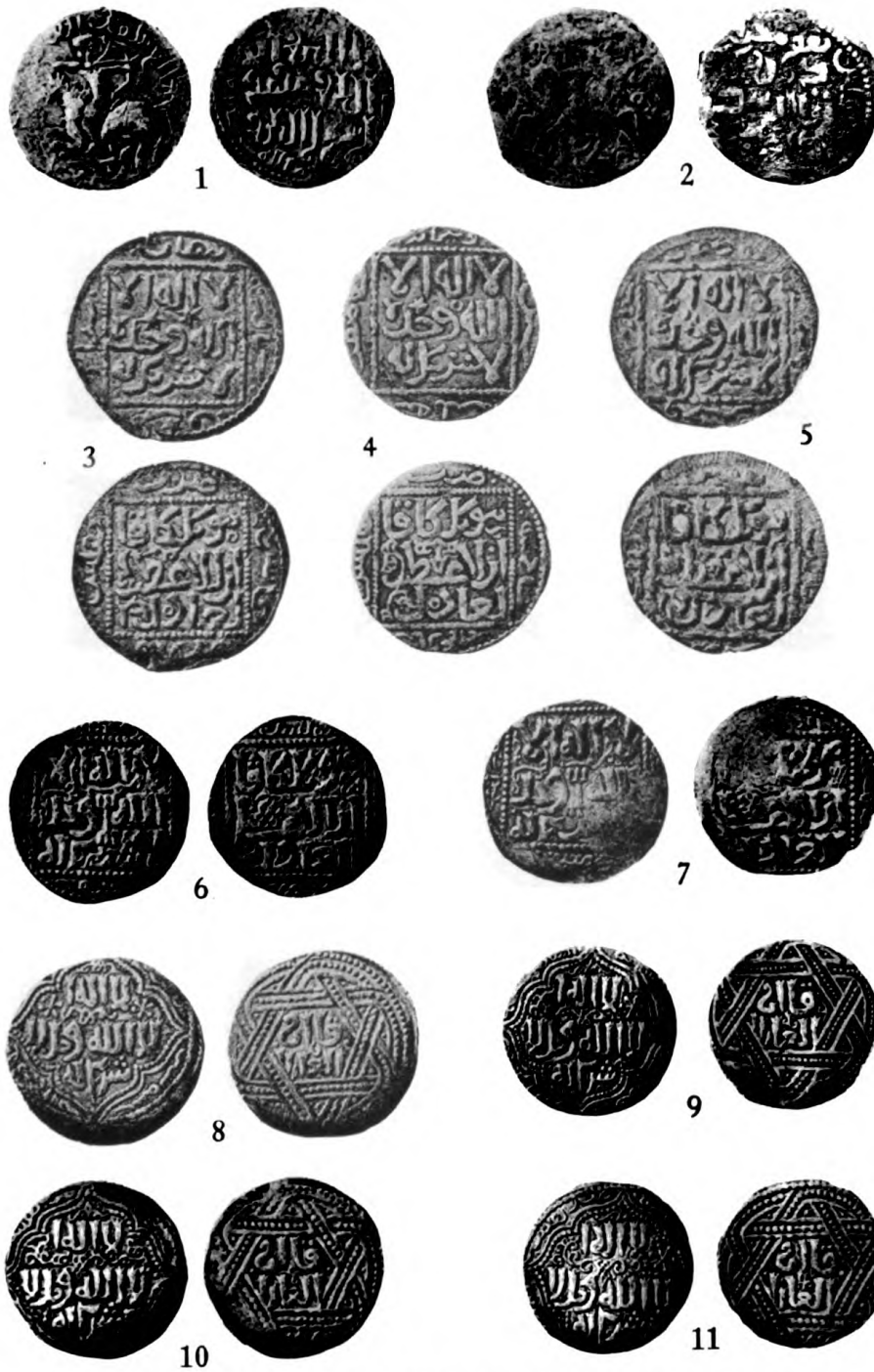


GIORGI III (1); QUEEN T'AMAR (2-8);
JALAL AL-DIN (9)

III



JALAL AL-DIN (1-2); QUEEN RUSUDAN (3-6);
FIRST MONGOL SERIES (7-8)

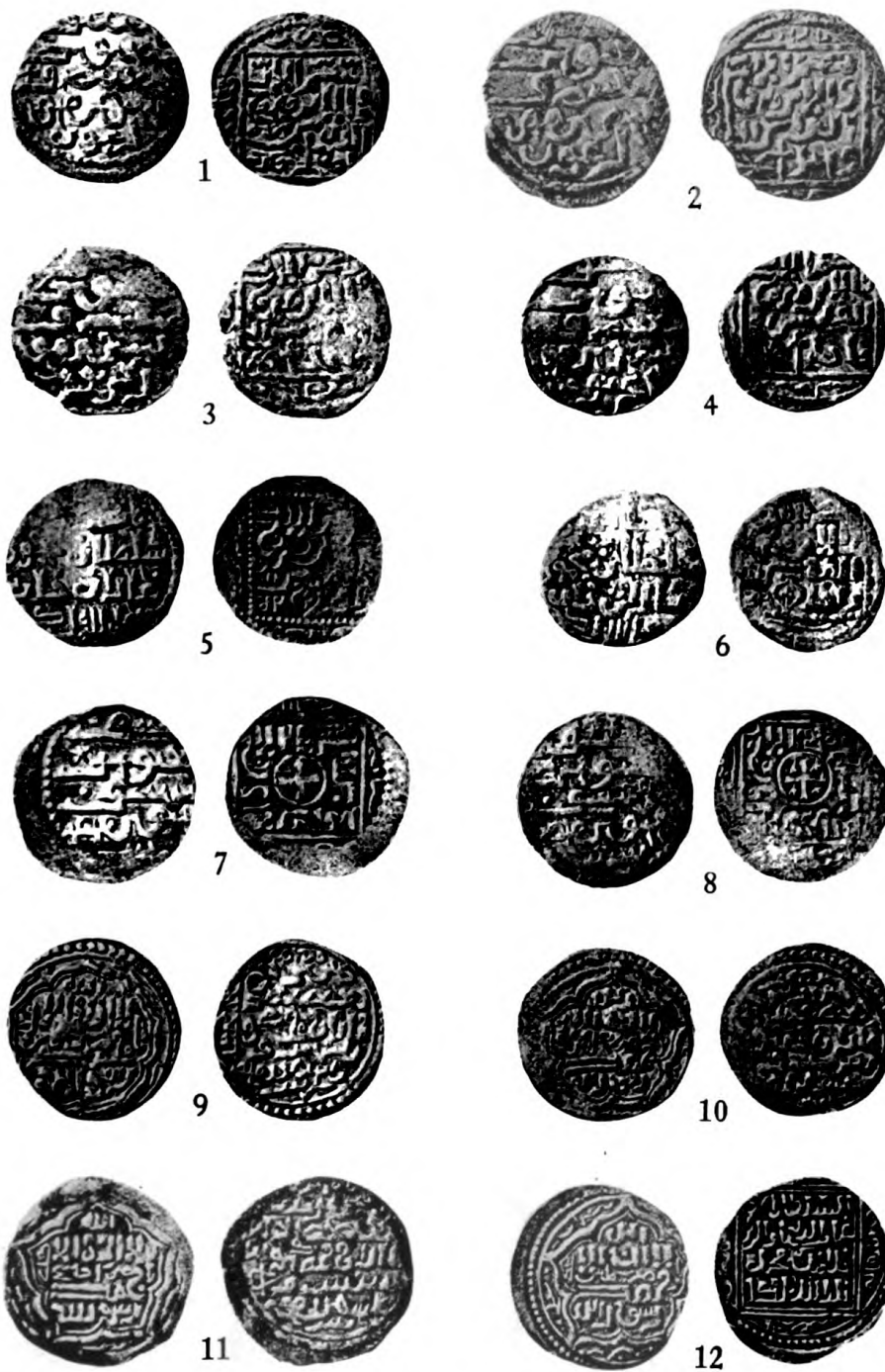


FIRST MONGOL SERIES (1); DAVID NARIN (2);
MANGU KHAN (3-7); HULAGU KHAN (8-11)

v



IL-KHANS: ABAGHA (1-8); AHMAD (9);
ARGHUN (10-12)

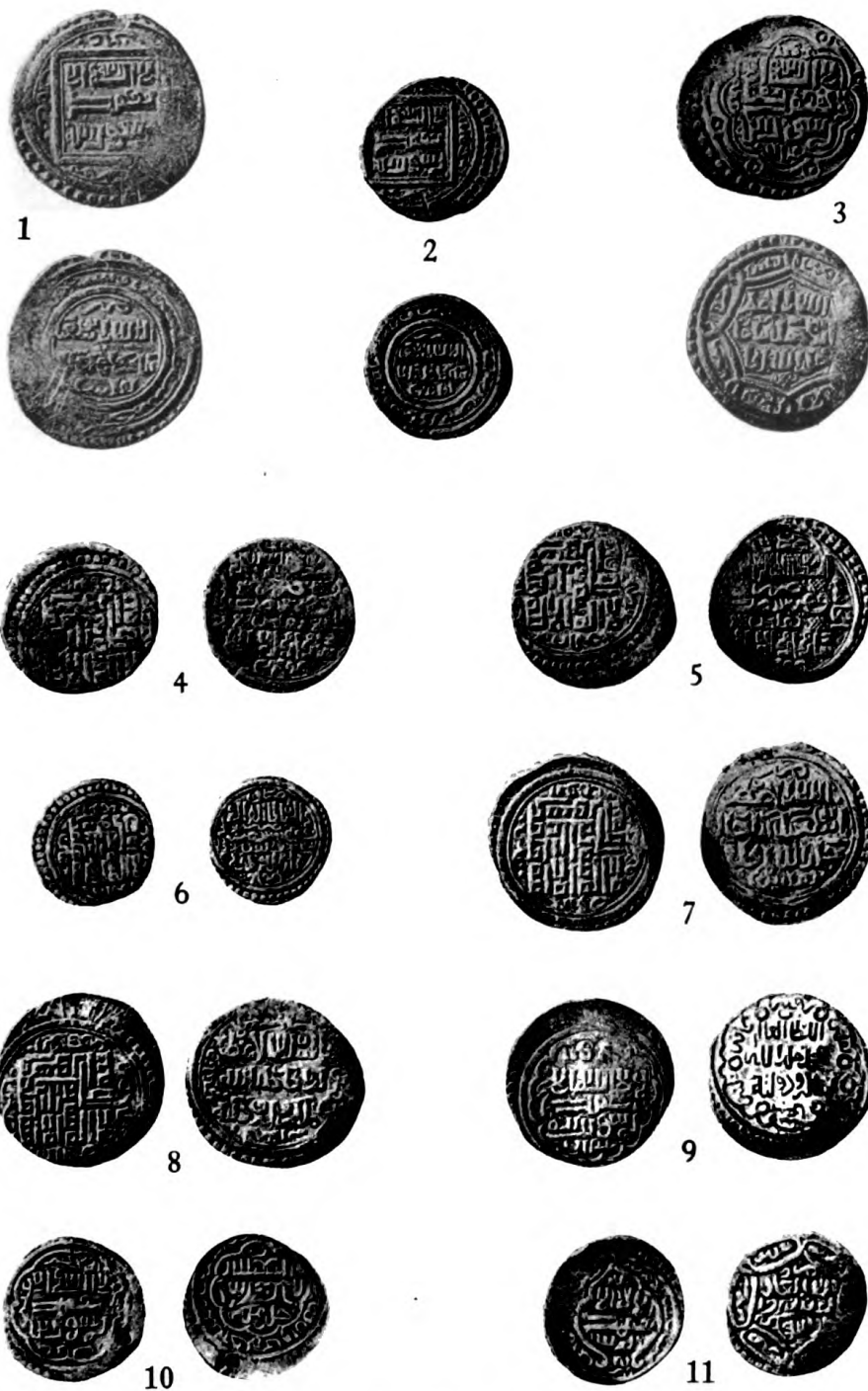


IL-KHANS: ARGHUN (1-2); GAIKHATU (3-4);
GHAZAN (5-11); ULJAITU (12)

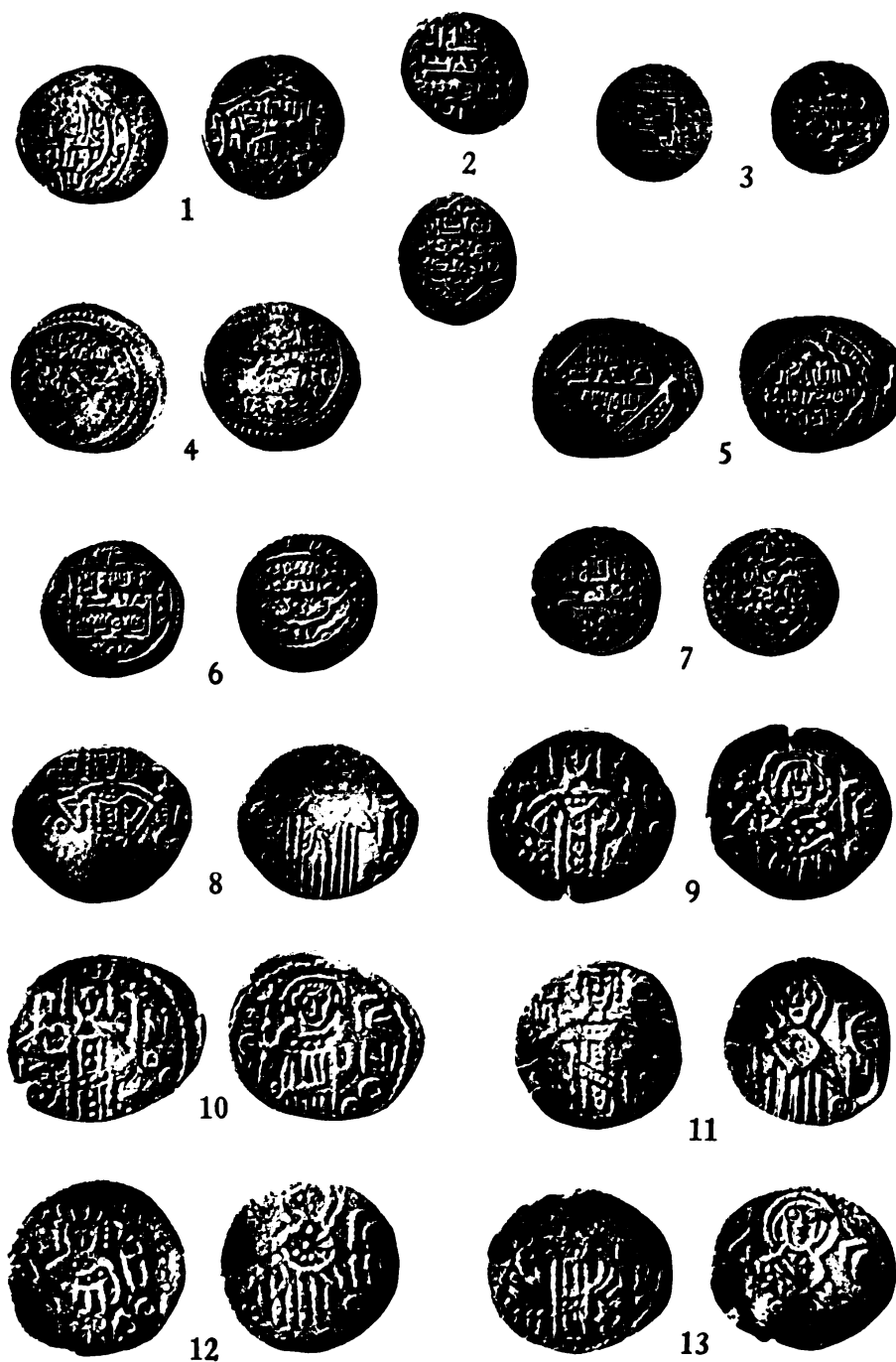
VII



IL-KHANS: ULJAITU (1-4); ABU SA'ID (5-9)



IL-KHANS: ABU SA'ID (1-7); ARPA (8);
 MUHAMMAD (9); SULAYMAN (10);
 ANUSHIRVAN (11)



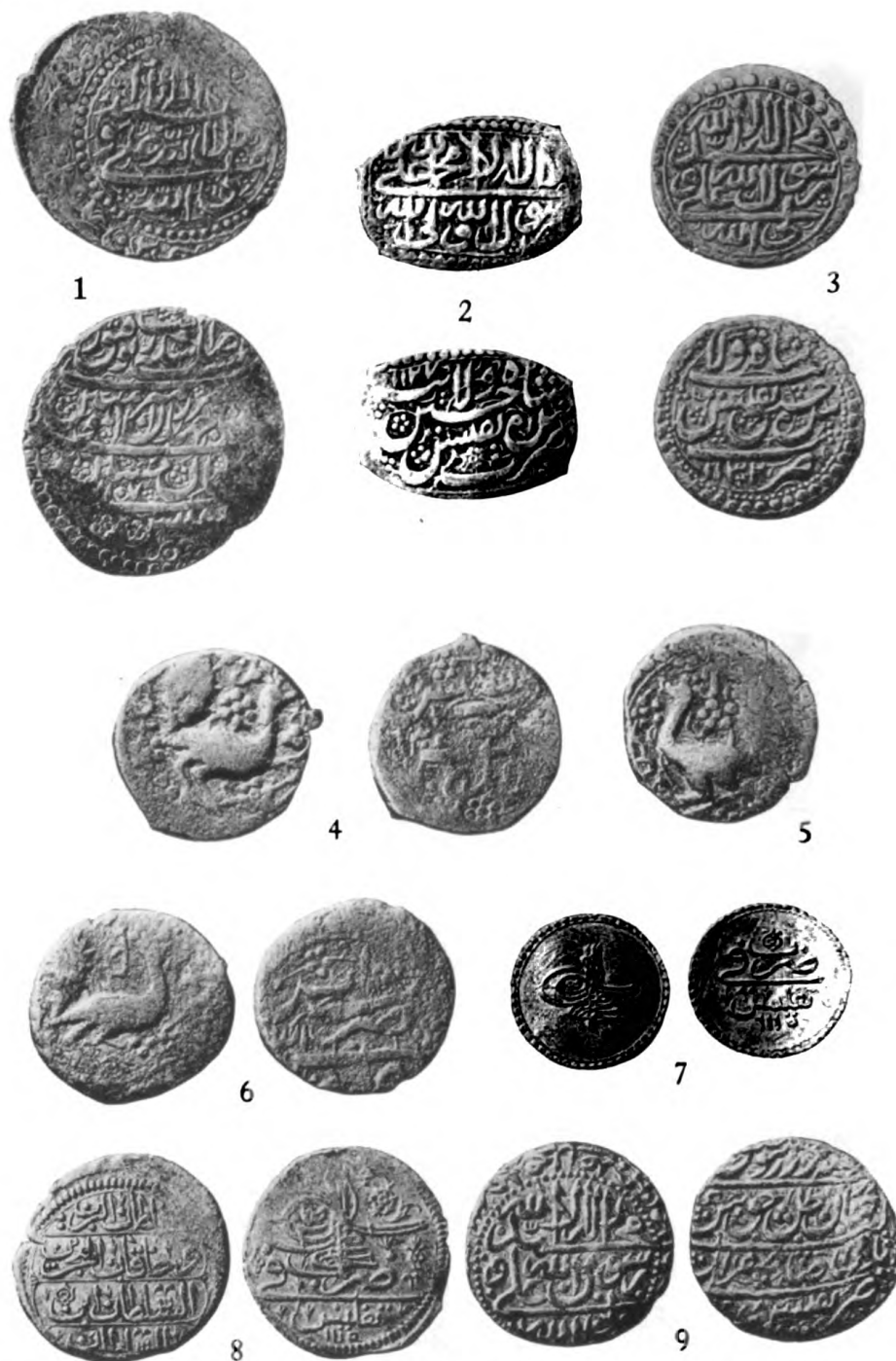
IL-KHAN: ANUSHIRVAN (1-7);
IMITATIONS OF TREBIZOND ASPERS (8-13)

X



IMITATION OF TREBIZOND ASPERS (1);
AUTONOMOUS COPPERS (3-5); SAFAVI SHAHS (6-8)

XI



SHAH SULTAN HUSAYN (1-3); KING BAK'AR (4-6);
SULTAN AHMAD III (7-8); SHAH 'ABBAS III (9)



NADIR SHAH (1-6); T'EIMURAZ II (7);
SHAH IBRAHIM (8-10)

XIII



SHAHROKH (1); T'EIMURAZ II (2)
EREKLE II (3-10)

XIV



EREKLE II (1-4); GIORGI XII (5-7)

XV



RUSO-GEORGIAN SERIES

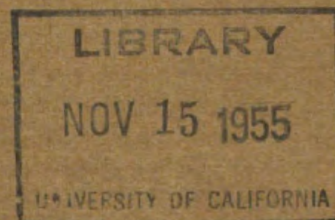
NUMISMATIC NOTES AND MONOGRAPHS

No. 131

THE COINAGE OF THE FIRST MINT
OF THE AMERICAS
AT MEXICO CITY

1536—1572

By ROBERT I. NESMITH



THE AMERICAN NUMISMATIC SOCIETY

NEW YORK

1955

THE AMERICAN NUMISMATIC SOCIETY

Founded 1858 • Incorporated 1865

BROADWAY BETWEEN 155TH & 156TH STREETS

NEW YORK 32, N. Y.

PURPOSES: The Society was founded for the collection and preservation of coins and medals and for the investigation of their history and other subjects connected therewith.

MEMBERSHIP: Applications for membership are welcomed from all interested in numismatics. Inquiries regarding membership should be addressed to the Secretary of the Society.

DUES: The annual dues for an Associate Membership are \$7.50. Issues of the *Notes and Monographs*, *Museum Notes*, *Hispanic Numismatic Series*, and *Numismatic Literature* are distributed to all members.

PUBLICATIONS: The *Numismatic Notes and Monographs* consist of separately issued papers, each on a single topic, of which two to four numbers appear each year. *The American Numismatic Society Museum Notes* is a publication, irregular in appearance, consisting of brief notes and papers, principally on items in the Society's collections. *Numismatic Literature* is a quarterly listing current numismatic publications with abstracts of their content. *Numismatic Studies* is a series which accommodates works of full book length. The *Hispanic Numismatic Series*, published in cooperation with the Hispanic Society of America, consists of publications devoted to the coinage of the Iberian Peninsula, and is based on the collections of the Hispanic Society.

MUSEUM: The Society maintains a museum located in uptown Manhattan, New York City, which houses its offices, collections and library. Collections embrace coins of all periods from their inception to modern times, medals and decorations. Selections from its cabinets are on display in an exhibition. The library, consisting of about 15,000 volumes, covers all branches of numismatics.

The Museum is open to Members and the public on Tuesdays, Wednesdays, Thursdays, Fridays and Saturdays. It is closed on Sundays and Mondays and the following holidays: New Year's Day, Lincoln's Birthday, Washington's Birthday, Memorial Day, Independence Day, Election Day, Thanksgiving Day and Christmas Day. The hours of the Library are from 9 A.M. to 5 P.M. The public exhibition is open from 2 to 5 P.M.

NUMISMATIC NOTES AND MONOGRAPHS

Number 131

NUMISMATIC NOTES AND MONOGRAPHS

is devoted to essays and treatises on subjects relating
to coins, paper money, medals and decorations.

PUBLICATION COMMITTEE

A. CARSON SIMPSON, *Chairman*

ALFRED R. BELLINGER

AGNES BALDWIN BRETT

THOMAS O. MABBOTT

THEODOR E. MOMMSEN

SAWYER MCA. MOSSER, *Editor*

The Coinage of the First Mint of the Americas at Mexico City

1536—1572

By ROBERT I. NESMITH



THE AMERICAN NUMISMATIC SOCIETY

NEW YORK

1955

ALL RIGHTS RESERVED BY
THE AMERICAN NUMISMATIC SOCIETY

PRINTED IN GERMANY
AT J. J. AUGUSTIN • GLÜCKSTADT

To my friend,

Alberto Francisco Pradeau

Without whose help this book could
not have been written

CONTENTS

INTRODUCTION	I
I. THE FOUNDATION OF THE MEXICO CITY MINT	6
II. MINT OFFICIALS AND WORKERS	13
III. MINT TECHNIQUES: DIE MAKING AND COINING	29
IV. THE SILVER AND COPPER COINAGE; METROLOGY	36
THE CATALOGUE	47
KEY TO CATALOGUE NUMBERS OF SILVER COINAGE	51
I. EARLY SERIES R	53
II. EARLY SERIES G-F-P	72
III. LATE SERIES G-A-R-S-L-O	95
IV. THE COPPER COINAGE	127
APPENDIX: ROYAL DECREE ESTABLISHING THE MINT	135

INTRODUCTION

The earliest silver and copper coins of America were struck at Mexico City where the first mint of the New World was established by the Spanish in the spring of 1536, during the reign of Charles and Johanna. Probably because of the great number of varieties in which the coins of this series exist, they have never been fully described or illustrated. It is the aim of this work to fill the long existing void in numismatic literature covering the coinage of the Mexico City mint between 1536 and 1572.

The present study originated with a suggestion of Mr. Wayte Raymond that the author prepare three short articles on the series for *The Coin Collector's Journal* in 1943-44. In the preparation of these articles it became clear how scanty the information is concerning this entire series and the circumstances under which it was struck. Much of the little information available — scattered through books, periodicals, and coin catalogues — is either incorrect, vague, or contradictory.

The original documents of the period 1536-72 relating to the Mexico City mint — decrees, regulations, appointments, etc. — repose in the Archives of the Indies in Spain. Many of these which have not perished have never been transcribed and printed. The documents are long and involved; many of the words commonly found are obsolete today, many others have changed their meaning; proper names, legal forms, and technical terms are abbreviated; and the handwriting of the sixteenth century is difficult to decipher. As a result there have been errors in transcription of dates and names in some of the printed sources. It has been our attempt, so far as possible, to examine reproductions of the original documents and to reconcile the existent inconsistencies. Because it has been so frequently misquoted, the royal

decree establishing the mint is published in English translation for the first time in the Appendix to this volume.

A wealth of detail concerning the mint in its early days of operation is contained in the record¹ of the testimony taken in the investigation of the Mexico City mint made by Don Francisco Tello de Sandoval. This is the most valuable record of mint affairs and procedures during this period which has yet come to light. It has been possible through it to reconstruct the early history of the mint on the following pages.

When Hernando Cortés, the conqueror of Mexico, returned to Spain in 1540 he preferred charges against the Viceroy Mendoza, and inspired an attack on his administration of New Spain and on those others whom he regarded as responsible for his lost prestige. He found little satisfaction at court but with the framing of the New Laws in 1542-1543 under Las Casas he presented his charges and complained of unfair treatment at Mendoza's hands and charged his administration with graft, inefficiency and favoritism.² As a result of Cortés' charges, the lic. Francisco Tello de Sandoval³ sailed for New Spain in November, 1543, with authority to investigate all of the royal offices in New Spain under a *provisión de visita*, which

¹ The original manuscript record of the testimony in the investigation consists of seventy-eight folio pages in the *Archivo General de Indias, sección de Justicia, estante 48, legajo 2, cajas 20-22*. Excerpts appear in J. T. Medina, *Las Monedas Coloniales Hispano-Americanas*, Santiago de Chile, 1910, pp. 59-63. Medina in error dates the investigation as taking place in 1546. It was also used as the basis of an article by A. S. Aiton and Benj. W. Wheeler, "The First American Mint," in *The Hispanic-American Historical Review*, Vol. 9, No. 2, 1931. The full text is printed in Spanish in A. F. Pradeau, *Don Antonio de Mendoza y la Casa de Moneda de México en 1543*, Mexico City, 1953, where errors by the printer have confused the text and names. These errata have been published in *Numisma*, Num. 13, Oct.-Dec. 1954, pp. 127-129. Hereafter, references to the original testimony are given as TSI. Other references to the *Archivo General de Indias* are given as AGI.

² For the charges see A. S. Aiton, "The Secret Visita Against Viceroy Mendoza," in *New Spain and the Anglo-American West*, 1932, Berkeley, Cal., pp. 1-22.

³ Sandoval, a member of the Council of the Indies, canon of the Cathedral in Seville, and Inquisitor of the bishopric of Toledo was granted his authority by royal decrees of May 13, and June 26, 1543.

gave him authority to question the conduct of all officials, from the highest to the lowest, and bring charges against them.^{3a}

The party⁴ appeared at the mint on May 27, 1545, to inspect and investigate the Mexico City mint and its officials, to ascertain what money was being coined there, and to learn whether the royal ordinances and laws governing mints were being observed.⁵

As the investigation progressed and the departments of smelting, coining, weighing and bookkeeping were visited, the officials and workers were thoroughly questioned as to their appointments, their duties, their predecessors and fellow workers. Veiled insinuations from some of the workers cast charges of questionable and illegal conduct at others. The official weigher of the City of Mexico was called to test the weights of the mint weigh-master. Investigation was made of the family relationships of officials to each other and of their ownership of slave workers at the mint.

The Sandoval investigation of New Spain lasted from 1544 to 1547, in which year Sandoval returned to Spain and brought charges against the viceroy before the Council of the Indies.

The results of the Sandoval investigation may have corrected some administrative abuses of the colony but all the charges against the viceroy Mendoza were later dismissed by the Council of the Indies. The mint was also later investigated by the viceroy himself and as a result certain changes were recommended to the King. Mendoza, however, did not imprison the officials, although he found them all guilty in some degree of minor infraction of the laws.

Study of the actual coins issued by the mint presented their own set of complications. Because of their multitudinous variations, it soon became obvious that special techniques were required to make a clear and exact arrangement of the coins possible. Each coin was

^{3a} C. Pérez Bustamante, *Don Antonio Mendoza*, Santiago, 1928, and A. S. Aiton, *Antonio de Mendoza*, Durham, N. C., 1927.

⁴ Sandoval's staff consisted of Miguel López de Legazpi and as witnesses, Francisco Vásquez de Coronado, a member of the town council of Mexico City, Cristóbal de Espíndola, constable of the Holy Inquisition; and Diego de Rivera, a resident of Mexico.

⁵ TSI, May 27, 1545.

photographed and then enlarged to as much as fifteen diameters, so that every variation and imperfection was easily seen. To provide the illustrations a tracing was made directly on the enlarged photograph which was then bleached to leave only the pen lines. Reduced to the actual size of the coin each illustration presents an exact tracing – not a drawing – of the original piece. Thus the details, which otherwise could only have been seen in an enlarged photograph, are clearly exhibited. The illustrations thus produced of coins and punch design details appear in the catalogue of coins. They are supplemented by plates made from photographs of actual coins.

A great number of persons kindly allowed their coins to be studied, photographed, and included. Among them mention should be made of P. K. Anderson, F. J. Angert, Eduardo Arpi, Jesús Avalos, Bradford Babbitt, Paul Berninger, F. C. C. Boyd, Vernon L. Brown, Humberto Burzio, Joaquín Alberto Contreras, Roy E. Daniels, Harley L. Freeman, Howard D. Gibbs, José Gómez, Clyde Hubbard, Salvador Illanes, B. G. Johnson, Fernand Kososky, Lucio Laguette, Ing. Rufino Lavín, George Martin, Enrique Martínez, George McGonigle, Jr., F. S. Neelon, Edgardo Nenclaves, A. R. Perpall, Lic. Alfredo Porraz, Dr. A. F. Pradeau, R. R. Prann, T. V. Purrington, Don Manuel Romero de Terreros, Bruno Rosales, O. K. Rumbel, José Tamborrel, Jr., R. B. Warren, J. W. Wilson, Raymond H. Wilson.

In addition, the collections of the American Numismatic Society (generously augmented by Stuart Mosher and Wayte Raymond) and the Hispanic Society of America were studied. Lic. Alfredo Porraz furnished photographs of the coins in the Museo Nacional de Historia in Mexico City by courtesy of the director, Dr. Silvio Zavala. The valuable collection of the Banco Nacional de México, S. A., was photographed through the assistance of its director, lic. Carlos Novoa, and of Carlos R. Linga. Clyde Hubbard classified several Mexican collections above mentioned, without which this work would have suffered considerably. In the summer of 1952, a large and interesting hoard of coins of Charles and Johanna and Philip II was unearthed

in Mexico. Due to the kindness of O. K. Rumbel, E. H. Windau, Victor Lanz, and Clyde Hubbard, over a thousand pieces of this hoard were examined and included in the study.

Adam Pietz of Philadelphia is to be thanked for his assistance on questions of die manufacture. Wilbur T. Meek's valuable study, *The Exchange Media of Colonial Mexico* (New York, 1948), has been quoted with his permission, as has "The First American Mint" by A. S. Aiton and B. W. Wheeler, from *The Hispanic American Historical Review*, IX, no. 2 (Durham, 1931), together with A. S. Aiton's *Antonio de Mendoza* (Durham, 1927). A. J. S. McNickle generously contributed his investigations concerning the continued striking of the Charles and Johanna series during the reign of Philip II.

Sydney P. Noe, Chief Curator, and the staff of the American Numismatic Society were of much assistance. William L. Clark and DeVere Baker photographed most of the coins, and the weighing was done by Richard D. Kenney. Richard P. Breaden translated the manuscript of the Sandoval Investigation from the Spanish transcription of Dr. A. F. Pradeau. George C. Miles provided access to the collection of the Hispanic Society of America. Sawyer McA. Mosser, T. V. Buttrey, and H. L. Adelson edited the text.

Above all, the author owes a debt of gratitude to Dr. A. F. Pradeau for his advice and criticism, for permission to use material from his private library and his published works, and for information from recent documentary discoveries. He obtained microfilms of manuscripts in the Archives of the Indies through Don José María Albareda y Herrera of Madrid, Secretario General del Superior de Investigaciones Científicas de Sevilla. For the ten years that the book has been in preparation he has enlisted the help of his friends and given freely of his own vast knowledge and energy. If he were credited throughout the text, his name would appear on every page.

THE FOUNDATION OF THE MEXICO CITY MINT

The earliest coins of the Mexico City Mint bore the names KAROLVS ET IOHANA. Charles I of Spain, the fifth Holy Roman Emperor of that name, was the son of Philip the Handsome of Burgundy, and Johanna (Juana la Loca), the daughter of Ferdinand and Isabella. He was born in Ghent on February 20, 1500. Upon the death of Ferdinand in 1516, Charles succeeded to the throne of Spain, and with his mother, Johanna, whose reason had given way in 1506 and who took no part in state affairs, ruled Castile, Aragon, Navarre and Granada, Valencia, Catalonia, and the Kingdoms of Naples, Sicily, and Sardinia, as well as the Spanish Netherland together with the new colonies in America and the possessions in northern Africa. When his grandfather, Maximilian I, died in 1519, Charles was elected Emperor, succeeded to the inheritance of the Hapsburgs, and was crowned Charles V of the Holy Roman Empire at Aix on October 23, 1520.

His mother, Johanna, lived until April 1555. In October of that year Charles resigned the sovereignty of the Netherlands to his son, Philip. On January 16, 1556, he resigned his Spanish kingdom and retired to the monastery of Yuste in 1557, where he spent his last days in rest and study.¹ Charles' enthusiasm for America was keen and farsighted, and he had a boundless belief in its possibilities. His was the age of conquest and of the organization of the western hemisphere.

New Spain had repeatedly requested the establishment of a mint prior to November 10, 1525, the date of the first recorded petition.² However, long before this petition reached Spain, the king, in his

¹ *E. Armstrong, The Emperor Charles V.* London 1902, is valuable for his life and for documents bearing on his reign.

² Francisco del Paso y Troncoso, *Epistolario de Nueva España*, Mexico, 1942. Vol. 1 p. 85.

decree of November 24, 1525, stated that "the favor has been asked of me to grant permission for the establishment of a mint in New Spain," and commissioned Luis Ponce de León to investigate the advantages of founding a mint in Mexico.³ Ponce died on July 20, 1526, only sixteen days after his arrival in Mexico⁴ and his mission was not even begun.

By a decree of April 5, 1528, Nuño de Guzmán was empowered to investigate the necessity of a mint in Mexico.⁵ As far as is known, nothing developed from his commission. A few years later, in a letter dated January 22, 1531,⁶ the lic. D. Juan de Salmerón, a member of the Audiencia of Mexico City, brought the subject before the Council of the Indies. He believed, upon the advice of competent local persons, that there were craftsmen in Mexico capable of making the dies and performing the other necessary mint processes.

Requests for action on a mint continued, and there are recorded letters by the Audiencia of Mexico City to the queen on March 30, 1531;⁷ by Salmerón to the Council of the Indies, August 13, 1531;⁸ and by the Audiencia to the queen on April 19, 1532.⁹ The President of the Audiencia, D. Sebastián Ramírez de Fuenleal, wrote to the king on April 30, 1532, stressing the fact that he had mentioned several times previously the necessity of a mint in New Spain to complement the production of gold and silver.¹⁰ All these efforts produced no action and no mint, and the years passed.

³ *Actas del Cabildo de la Ciudad de México*, Mexico, 1871, libro I, p. 207; cf. W. T. Meek, *The Exchange Media of Colonial Mexico*, New York, 1948, p. 40.

⁴ A. F. Pradeau, *Numismatic History of Mexico from the Pre-Columbian Epoch to 1823*, Los Angeles, 1938, p. 22.

⁵ Vasco de Puga, *Provisiones, Cédulas, Instrucciones de Su Magestad, etc.*, Mexico, 1878. Vol. I, pp. 74-75. Originally published in Mexico in 1563.

⁶ *Colección de Documentos Inéditos Relativos al Descubrimiento, Conquista, y Organización de las Antiguas Posesiones Españolas en América y Oceanía*, (First Series), Madrid, 1864-84, 42 Vols. Vol. XIII, pp. 193-94. See also Pradeau, p. 23.

⁷ Del Paso y Troncoso, *op. cit.*, Vol. II, pp. 41-42.

⁸ *Ibid.*, Vol. II, p. 16.

⁹ *Ibid.*, Vol. II, p. 118.

¹⁰ *Col. de Docs. Ined.*, (First Series), Vol. XIII, pp. 217-218.

In 1535, with the introduction of a new form of government for New Spain under the viceregal system, Don Antonio de Mendoza was selected to act as the first viceroy in the Americas. Offered the post in 1529, he was appointed by the queen in early 1530, but was not officially confirmed until five years later, on April 17, 1535. He arrived with his party in Mexico City on November 14, 1535 to assume his position.¹¹ Among the duties assigned Mendoza was that of investigating the need of a mint and advising the king as to the necessary steps to be taken.¹² When he arrived in Mexico, however, he carried authority in the form of a decree signed by the queen on May 11, 1535,¹³ to establish a mint, and he wasted no time about it. The viceroy was ordered in the decree to find a suitable location, and if space in the court buildings was not adequate, to select a proper site, construct a building at the expense of the crown, and with the treasurer's assistance, appoint the mint staff. These orders were carried out, and the first coins of silver were issued about the month of April, 1536.¹⁴

¹¹ C. Pérez Bustamante, *Don Antonio de Mendoza*, Santiago, 1928. Mendoza sailed from San Lucar de Barrameda during July, 1535, and arrived at Santiago, Cuba, on August 26, where he stayed a few days and left about September 13. The *Actas del Cabildo de la Ciudad de México*, Vol. III, p. 129, minutes of October 2, 1535, state that the viceroy had arrived at Vera Cruz and ordered two additional councilmen to hasten there to kiss the hand of his Majesty's representative. He was received with great homage in the city of Mexico on Sunday, November 14, 1535. *Actas del Cabildo*, Vol. III, p. 131.

¹² *Colección de Documentos Inéditos Relativos al Descubrimiento, Conquista, y Organización de las Antiguas Posesiones Españolas de Ultramar*, (Second Series), Vol. X, pp. 250-251. Mendoza's duties were outlined in royal instructions dated April 25, 1535, of which Article Seven covers the mint question.

¹³ Since this decree does not appear to be in print in English, it is included in full in the Appendix. The translation is from the Spanish of José Toribio Medina, *Monedas coloniales Hispano-Americanas*, Santiago de Chile, 1919, pp. 54-57. The original is in the *Archivo General de Indias*, 96-6-12. The decree mentions only Mexico although it has been misquoted by many writers as also having authorized mints in Santo Domingo (Española), Potosí, and Santa Fé (Colombia).

¹⁴ Cf. the viceregal order of July 15, 1536, in Puga, *op. cit.* Vol. I, p. 388, which reads in part, "Before there was a mint in this city . . . and silver money coined, there was a great deal of trading by means of *tepuzque* gold. All *tepuzque* gold debts and contracts

There has been considerable difference of opinion among antiquarians concerning the problem of the site of the first mint in the New World. The difficulties have stemmed largely from the confusion of the *casa de fundición* with the *casa de moneda*. There is no doubt that the foundry, where the silver was cast into ingots and the king's *quinto* extracted as the royal tax, was not located in the same building with the mint but in the rear of the *Ayuntamiento*, or town hall. It certainly was in this location when the town council complained of its proximity to their meeting place on November 7, 1533. It is probable that the foundry was there even before the period of the *tepuzque* coinage.

When the Audiencia wrote to the king in 1531 appraising the property of Hernán Cortés, which had been confiscated by the order of the Council of the Indies, they mentioned that part of Cortés house, "will be convenient and necessary for installing a mint and smelter."¹⁵ This opinion was confirmed by Sebastián Ramírez de Fuenleal, president of the Audiencia, in a letter to the king dated April 30, 1532. He stated that in one part of the palace "there could very well be a smelter, a mint, and a prison."¹⁶

It appears that the viceroy Mendoza, who was authorized to select a site for the first mint, did choose space in the rear of the house of Cortés. Dr. Pradeau says that the viceroy decided on "a portion of the house of Cortés, Marqués del Valle, . . . at a yearly rental of five hundred pesos. On either side of this building were the streets of Tacuba

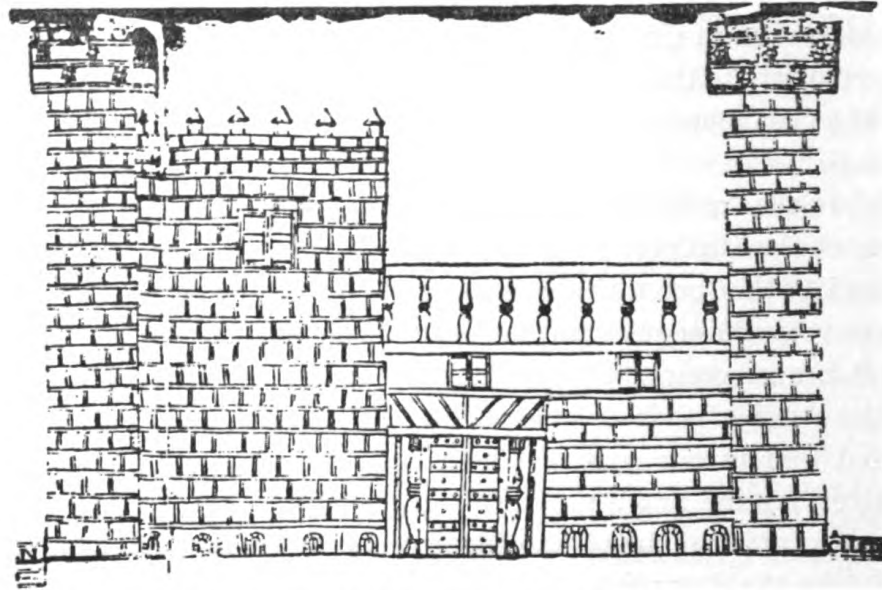
made from the first day of April of the present year are to be paid in the said gold in terms of the . . . silver reales that circulate at thirty-four maravedís each, one real for one tomín, and eight reales for one peso of *tepuzque* gold." *Actas del Cabildo*, Libro IV, pp. 20–21, June 2, 1536: "Relative to the silver reales now being made and used in trade in the city, there is much confusion because some accept them at eleven grains and others at twelve grains of *tepuzque* gold." The exact date that the mint opened is not found in any document, but the new coinage was well in circulation by June, and probably began to come from the mint in April. See Pradeau, *op. cit.*, pp. 25–26, and Meek, *op. cit.*, p. 53.

¹⁵ *Col. de Docs. Ined.*, First Series, Vol. XLI, p. 70.

¹⁶ *Ibid.*, Vol. XIII, p. 214.

and San Francisco; the rear was on Calle de la Carrera, and the front opened into a public square."¹⁷ The square is the Plaza Mayor.

In his letter to the king of December 10, 1537, the viceroy suggested "that a well fortified house might be built on the avenue called Tacuba to accomodate living quarters of various officials, as well as the foundry and the mint."



DRAWING OF CORTÉS RESIDENCE, FIRST HOME OF THE MINT*

The home of Cortés was used by the mint as late as the years 1544 to 1547 during the investigation of Don Francisco Tello de Sandoval into the affairs of the viceroyalty. Diego Fernández, a contemporary writer, verified that the mint was located in "the house where the Royal Audiencia is. It had nine patios inside and a very good garden and plaza where bull fights can easily take place. In this edifice there lived comfortably the viceroy, Don Antonio de Mendoza, the visitor, Don Francisco Tello de Sandoval, three members of the Audiencia, and the

¹⁷ Prádeau, *op. cit.*, p. 23. This site is the present location of the National Pawn Shop, the Director of which is Don Manuel Romero de Terreros, Marqués de San Francisco, the well-known historian and numismatist.

* From A.G.I. 154-2-19.

chief accountant. In the same building, there were also the royal prison, the smelter where bells and cannon are cast, and the mint. Along one side passes the street called Tacuba, and at one end San Francisco Street. At the back is the street called La Carrera. All these are principal thoroughfares. In front is a plaza where bull fights take place. The house is so large that facing the streets and plaza, there are eighty doors of private houses."¹⁸

That the mint edifice was not adequate appears in statements by the mint officials in 1545. The vice treasurer suggested that "his Majesty should order that a mint be built which would be better and more secure that it is at present, inasmuch as it has little strength and protection, for the walls are of thin adobe, thus causing a hazard to the silver, the traders, the treasurer, and a slave who guards it." The die-sinker, Francisco del Rincón, also stated that "it would be appropriate that his Majesty order a good mint constructed in this city, for at present it is very much in ruins and is used in this ruinous state, for which reason the merchants are distrustful and run a risk in leaving silver at the mint over night for in places its walls are of adobe. He knows that [thieves] one night broke into a box owned by a merchant named Alonso de Villaseca which contained grains of silver which he had melted for coining at the mint. The witness has seen the hole made in the wall close to where the box was kept, and heard Villaseca complain that a large quantity of silver had been stolen. . . ." Other witnesses supported this description of the condition of the mint.¹⁹

The two earliest detailed drawings or plans showing the buildings around the Plaza Mayor that have come to light in the Archives of the Indies are one of ca. 1574 and one of 1596.²⁰ By this time, the *Casa del Real Palacio*, now the National Palace, had been built. It was purchased by the crown for 33,000 pesos on January 19, 1562, and

¹⁸ Diego Fernández, *Historia del Perú*, Sevilla, 1571, p. 3.

¹⁹ Tello de Sandoval Investigation testimony of June 3 and 5, 1545.

²⁰ Diego Angulo Iniguez, *Planos de Monumentos Arquitectónicos de América y Filipinas existentes en el Archivo de Indias*, Universidad de Sevilla, Laboratorio de Arte, 1933; láminas 2 A to 2 H. = A. G. I. 154-2-19.

occupied by the royal offices on August 19 of the same year. On the 1596 plan, the mint is shown as part of the palace opposite the *Casa Principal de Guerreros*. This location is on the first block of the street called *Calle de la Moneda*, and the mint was moved to this location in 1569.²¹ There is some evidence to support the suggestion of Don Lucas Alamán and Artemio Valle Arizpe that from 1562 until 1569, the mint temporarily occupied a building adjacent to the rear of the Council Chambers at *Calle de la Monterilla* and *Pasaje de Disputación*, beside the *casa de fundición*.

Even after the removal of the mint to the National Palace, it is doubtful whether conditions improved. The workers at the mint continued to toil under many handicaps until the pounding of coins by hand was finally superceded by the introduction of the screw press in 1732 and a new mint was constructed.

²¹ Alberto María Carreño, "Las Primeras Fundiciones y Amonedaciones en México" in *Investigaciones Históricas*, No. 3, April 1939, pp. 315-316. The mint moved to the location on *Calle de Moneda* behind the National Palace in 1569. "At the southern bastion of the National Palace the mint offices were auctioned off by accepting bids at the lighting of a candle and closing the auction when the candle burned out."

MINT OFFICIALS AND WORKERS

The decree of May 11, 1535, authorizing the foundation of the Mexico City mint, ordered that the viceroy, Mendoza, together with the treasurer, select the proper officials to operate the mint. The first officials were selected and appointed for terms of two years. In a letter to the king, dated December 10, 1537,¹ Mendoza mentioned that he had forwarded the list of officials to Spain, but fearing that it was lost in transit, he enclosed a duplicate list. Neither list has come to light, so that the complete staff of the mint for its first two years of operation is unknown. The viceroy did say that he had appointed to the office of assayer and foundryman Francisco del Rincón, who was in Mexico when Mendoza arrived and who had a letter of recommendation from the king. Antón de Vides was given the position as die sinker. Mendoza spoke highly of the skill of both appointees.

Because many of the appointments and records of the period 1536-1572 have not been located in the archives of Spain or Mexico, it is not possible to construct a complete and documented record of the various mint officials. We do know that the following officials pioneered at the mint from its opening in the spring of 1536:

Don García Manrique, the Conde de Osorno, treasurer by the king's appointment, who arrived in Mexico with the viceroy.

Francisco del Rincón, first assayer and foundryman, appointed by the viceroy.

Francisco del Rincón, a cousin, foundryman and assistant to the assayer, appointed by the treasurer.

Antón de Vides, first die sinker, appointed by the viceroy.

Alonso Ponce, a workman.²

¹ *Col. de Docs. Ined.*, First Series, Vol. II, p. 192-194.

² *Idem*, reference to Francisco del Rincón, assayer, and Antón de Vides. Francisco del Rincón, assayer, and Alonso Ponce testified on June 5 and June 9, 1545, respectively, in TSI. For the Conde de Osorno, see below note 28. The Indians of the town of Xiquipilco were assigned as the labor force of the mint for the first two years.

Late in 1537, as the first two year period was drawing to an end, a new staff of mint officials arrived from Spain. The offices had been granted to Spanish favorites by the king, and the arrival of their *tenientes*, or deputies, to assume their duties created a situation both confusing and embarrassing for the viceroy and the mint workers. As a result, Mendoza suggested that the king relieve him of the duty of making mint appointments, and that the king assume the responsibility. He complained that it was unfair to the officials who had made the initial step of opening the mint, to be displaced after the routine had been established; and that there was not room for as many officials in the Mexico City mint as in the mints of Castile. The list of the king's appointees has not been found, and the outcome of this duplication in appointments is unknown. It is known however that Francisco del Rincón, the first assayer, did not continue into a second consecutive term. Neither did de Vides, the die sinker, as far as is known.

The grant of mint offices was made in the same manner as political "plums" are handed out by politicians in our time. The king simply conferred the offices on his favorites. The beneficiary received ownership of the position for life, with all the "honors, graces, favors, franchises, freedoms, exemptions, pre-eminences, privileges, prerogatives, and immunities"³ which the title afforded. Under the royal grant, the owner could, and generally did, sell, lease, or assign the position to one or more *tenientes*. Usually the owner of the office lived in Spain, while his *teniente* resided in the mint edifice in Mexico City and performed the functions of the position. Thus, in the year 1545, the Bishop of Lugo owned the office of secretary of the mint, but the duties were carried out by Pero Sánchez de la Fuente, under a lease whereby the bishop received two-thirds of the fees, while Sánchez, his *teniente*, retained one-third.⁴

The officials and workers at the mint did not receive a salary, but worked by contract according to which they shared in the division of sixty-eight maravedíes (two reales) in fees taken from each mark of

³ From the appointment of Francisco del Rincón as die-sinker, February 11, 1542.

⁴ TSI, testimony of the vice-treasurer, May 29, 1545.

silver coined. The division of the fees as given in the testimony of the Sandoval Investigation follows:

Of the fees the treasurer received twenty-two maravedíes

per mark,	XX II
the assayer received one maravedí	I
the die sinker received five maravedíes,	V
the secretary received one maravedí,	I
the guards (two) received two maravedíes,	II
the weigh master received one maravedí,	I
the coiners received eight maravedíes,	VIII
the foremen received twenty-four maravedíes,	XX IV
and the <i>raciones</i> were four maravedíes.	IV
	<hr/>
	LX VIII

The four maravedíes of the above called *raciones* were divided among the workers for subsistence.⁵ The assayer, in addition to his fees, charged for assay two reales for each ten marks of silver which the merchants brought to the mint to be coined. The *alcaldes* and the *merino* of the mint did not share in the division of the fees, but each received an allowance of 117 maravedíes for each one thousand marks coined.

The value of a mint office was considerable, as can be illustrated by the suit brought against Francisco del Rincón by Pedro de la Membrilla. The plaintiff claimed to have been swindled out of his property, del Rincón having purchased for 550 gold ducats the position as assayer which was worth some 1800. In 1544, Juan Gutiérrez purchased the office of assayer from de la Membrilla. The contract, which seems to have embraced the permanent sale of the right as *teniente*, or deputy assayer, rather than a short time lease, involved "1500 pesos *de oro de minas* of a value of 2210 maravedíes per mark."⁶

That the mint offices were much sought after stemmed not simply from the considerable income they afforded. Besides receiving the

⁵ TSI, May 29, 1545.

⁶ TSI, appended to court record.

fees assigned them, the officials were furnished quarters in the mint buildings, and were exempt from many taxes and duties which fell upon the common citizen. They had ample opportunity for graft, and, operating at a distance from Spain, with little government supervision, they had many chances to earn substantial incomes beyond their legal fees. The extent of illegal activity at the mint is indicated in the fact that the investigation by Viceroy Mendoza, reinstituted after that of Tello de Sandoval, resulted in the indictment of every official for some infraction of the laws.⁷ As early as the Tello de Sandoval hearings it was learned that, contrary to all regulations, several officials were of one family — del Rincón, and that the Negro slaves working at the mint were owned by certain of the officials, and that there was irregularity in the registration of dies as well.

Assayer and foundryman, *ensayador y fundidor*

The laws of the Catholic kings commanded that all coin of their dominions bear the registered mark, or *señal*, of the assayer of the mint of issue, as a guarantee of his responsibility for the legality in weight and fineness of the coins.⁸ From the arrangement of the coins by design and details it appears that the assayers marks were used on the coins approximately in this order: EARLY SERIES R, G, F, P; LATE SERIES G, A, R, S, L, O. In order to prove this arrangement, it would be necessary to document both the name of the assayer and the period in which he worked at the mint, an impossibility at the present because of the gaps among the records so far located. Confusion has also arisen because some of the owners of the office of *ensayador y fundidor* were not actually at the mint but lived in Spain and leased

⁷ A. G. I. Doc. 58-3-8, Mendoza to the Marqués de Mondéjar, July 1545, filed as 1549, with Mendoza's answers to the Tello de Sandoval charges against him. In Pradeau, *Don Antonio de Mendoza y la Casa de Moneda de México en 1543*, Mexico, 1953, pp. 107 ff. (referred to incorrectly as 60-3-23). The marquis was D. Luis Hurtado de Mendoza, the second person to bear the title. He was the oldest brother of D. Antonio de Mendoza.

⁸ Ley 38, June 13, 1497. "...una señal suya por donde se conozca quien hizo el ensai de aquella moneda."

the position to a *teniente* at the mint. The *señal* of the *teniente* who actually worked in the mint is that which appears on the coinage.

Francisco del Rincón, first assayer. There is no question that the first assayer at the Mexico City mint was Francisco del Rincón, but he is not to be confused with his relative of the same name who at this time was foundryman. He was appointed by the viceroy and served from the opening of the mint in the spring of 1536 until some time after March 22, 1538.⁹

By the time del Rincón had completed his first two year period as assayer, the ownership of the office of assayer and foundryman belonged to Pedro de la Membrilla of Medina del Campo in Spain, who by reason of being either a minor or an incompetent was represented by his father, lic. Gutiérrez Velásquez, in all affairs pertaining to the office.¹⁰ On July 31, 1538, the owner, through his father, granted to Francisco de Loaysa, the *Oidor* of New Spain, and to Bartolomé de Consate, the Governor of Mexico City, authority to lease the office to a *teniente* for such a period and price as they saw fit. This information proceeds not from the actual contract, but from an affidavit of de Loaysa, which explained the lease, and included the statement that "I leased the office of *ensayador y fundidor* in the Mexico City mint to Francisco del Rincón [i. e., for a second term], and inasmuch as the most honorable Lord Viceroy of New Spain and the Treasurer of the said mint would not accept Francisco del Rincón for the said offices, and since the said offices [cannot] remain vacant," the lease was granted to Juan Gutiérrez.¹¹

⁹ TSI, testimony of May 28, 1545.

¹⁰ TSI appended documents and lawsuit, Justicia 1008. In every recorded document found to date, Gutiérrez Velásquez signs as father and legal administrator for his son, Pedro de la Membrilla.

¹¹ TSI appended to records, the first of a series of documents demonstrating how Gutiérrez became assayer. It is strange that having mentioned Francisco del Rincón so highly to the king that the viceroy refused a short time later to accept him for another term. Perhaps some such difficulty arose as was later to be made public in del Rincón's attempt to defraud de la Membrilla in the purchase of the office of assayer, or in the attacks on the del Rincón family generally which found a place in the Tello de Sandoval investigation.

At some time following the expiration of his first office, del Rincón seems to have filled the office of *teniente* treasurer. In 1542 he may have received the appointment as *die* sinker.

The next mention of Francisco del Rincón in connection with the office of assayer occurs in 1543, on the occasion of the purchase of the office by him from de la Membrilla on March 21.¹² On September 29, however, the owner¹³ brought suit against del Rincón to recover the rights to the office of assayer which had been sold to him a year and a half previously. Sebastián Rodríguez who had been retained as counsel, presented a petition on December 4, which claimed that del Rincón, who was thoroughly familiar with mint affairs, had purchased the office of *fundidor y ensayador*, and paid a deposit of 400 ducats of the total sale price of 550 ducats. Del Rincón had represented to de la Membrilla (who had never been in Mexico and was unfamiliar with the true value of the office) that no one would buy it for more. Rodríguez contended that the office was really worth 1800 ducats or more, and that the purchase had been made by fraud and deceit. The owners pleaded that del Rincón be forced to accept the return of his deposit, that the sale be declared void, and that the appointment be returned to the owners, in order that the position could be sold to another at its real worth.¹⁴

On December 5, 1544, a copy of the above claim was presented before the Council of the Indies. Appended to it was the statement that the petition had been examined by the members of the Council, and that Francisco del Rincón was given fifteen days to answer the charges. On December 16 *lic.* Juan de Lazcano stated that he, acting for de la Membrilla and Gutiérrez Velásquez and by the orders of the Council, had found del Rincón in the city of Seville and had served

¹² Listed in the General Index of the papers in the Library of the Royal Academy of History, Madrid. See below, note 17.

¹³ TSI, third document appended.

¹⁴ The position had already been sold to Juan Gutiérrez (who had leased it in 1538), on April 22, 1544. See TSI fourth document appended. During this brief period, March 1543 to April 1544, the scarce LATE SERIES coins with del Rincón's mark R were probably struck.

him in persons with the summons. No answer was received by the following January 2; five days later the plaintiff's claim of del Rincón's default was registered along with the judgment for settlement and costs of the action.¹⁵

With this suit, Francisco del Rincón disappears from the records. He may have later become the first assayer at the mints of Lima or Potosí, or it may be that this was another member of the famous family.

Juan Gutiérrez, second assayer. It is now necessary to return to the year 1538, when Francisco del Rincón completed his first two year term as assayer. The exact date on which Juan Gutiérrez assumed the official duties of *ensayador y fundidor* at the mint is unknown, but he did follow del Rincón. Because Pedro de la Membrilla owned the office at the time, Gutiérrez must have leased the position from him through de Loaysa.

Unfortunately, no documents whatever for the years 1539 or 1540 relating to the mint have been found in the Archives or calendars of state papers of Spain or Mexico. There is extant, however, the last lease signed by Gutiérrez renting him the office on January 17, 1543.¹⁶ It states in part, "that I lease to you, Juan Gutiérrez, as principal lessee, and to you, Alonso de Villaseca, as his trustee . . . being present, the said offices of *ensayador y fundidor* . . . which I lease to you for a time and space of two full years, first following, which begin to run and do run from the first day of the month of August next . . ." This does not exclude the possibility that Gutiérrez had been at the mint as early as 1538, in order to follow del Rincón in the office and to produce the EARLY SERIES with *señal* G. During del Rincón's second lease, which started March 21, 1543, and ended by the lawsuit on January 7, 1545, the position was sold to Gutiérrez on April 22, 1544.¹⁷ This contract mentioned no term of service and was evidently an outright sale for life tenure.

¹⁵ A. G. I., Justicia 1008.

¹⁶ Second document appended to TSI.

¹⁷ Fourth document appended to TSI. The date of del Rincón's second lease has been found in the index to the records in the Royal Academy of History in Madrid, but the document itself has not yet come to light. The date is possibly incorrect; it is

The dates on which Juan Gutiérrez signed either leases or documents at the mint as assayer are as follows:

January 17, 1543, two year lease, to commence the following August.¹⁸

March 17, vouchers at the mint.¹⁹

August 1, lease of office renewed, at a rental of 35 pesos *de oro de minas*, each peso valued at 450 maravedíes.

April 22, 1544, purchase of office for 1500 pesos valued at 2210 maravedíes per mark. One-half the price was paid in the form of five plates of silver weighing 152 marks, 5 oz., and 6 reales.²⁰

August 9, vouchers at the mint.

February 16, 1545, vouchers at the mint.

March 18, vouchers at the mint²¹

difficult to understand how he could have leased the office in March of 1543 after Juan Gutiérrez had already obtained the lease to begin the following August. If the date of the del Rincón lease is correct, one of two solutions may obtain. It is conceivable that the leases were granted under two separate powers of attorney, some confusion arising therefrom; but for this there is no evidence. It is also possible, and certainly more probable, that del Rincón bought the office rather than leased the position of *teniente*. Such indeed was the case, if it is this lease to which the suit against del Rincón refers, the suit giving no date for the original transaction. In such a case, Gutiérrez, who had already leased the office as *teniente* for two years beginning August 1, 1543, would continue in his position, now having as his master del Rincón rather than Pedro de la Membrilla. Del Rincón would have ownership of the office, but would not act in it until Gutiérrez' lease should have expired. If this hypothesis is true, we may have here a further source of the enmity between Gutiérrez and the family del Rincón in general; for Francisco del Rincón would hardly have let out to Gutiérrez in 1545, on the expiration of the two year lease, an office he was competent to fill himself, and it was to the interest of Gutiérrez to frustrate del Rincón's ownership to keep his own position secure.

¹⁸ Doc. no. 2 appended to TSI. But there surely was an earlier lease under which Gutiérrez acted prior to 1543. The vice-treasurer stated on May 29, 1545 that Gutiérrez took the office before the lease in question was signed — "he took office under the ordinances before the transfer."

¹⁹ TSI, testimony of May 28, 1545.

²⁰ Fourth document appended to TSI. A considerable sum, amounting to 675,000 maravedíes, compared to the annual rental of 15,750 maravedíes, which Gutiérrez had paid previously to lease the position.

²¹ The above are signatures, found in TSI, testimony of May 28, 1545.

From May 28 to July 15, he was acting as assayer during the Sandoval Investigation.

On May 28, 1545, Gutiérrez testified that he had resided at the mint for six years, which would place him there as early as May, 1539.

The known history of Juan Gutiérrez, then, makes him responsible for the EARLY SERIES coins with the mark G, as well as those of the LATE SERIES with G. More varieties are known of his coins than of those of any other assayer of the Charles and Johanna coinage.

Esteban Franco, third assayer. The history of this assayer, though interesting, is extremely fragmentary. He was originally an assayer at the foundry, the *casa de fundición*, for he was appointed assayer for the *tepuzque* gold coinage on August 4, 1531.²² He was still serving at the foundry in June-July 1545, and was summoned to the mint by Tello de Sandoval to make test assays.²³ Charges were later preferred against him for irregularities, and he was recalled to Spain, convicted, and removed from office.²⁴

Among the many hundreds of pieces of the Charles and Johanna coinage which were studied, only eight coins bearing the *señal* F were found. Franco clearly served in a temporary capacity at the mint only for a very short period, probably around 1538-40. His coins seem to have been struck at approximately the same period as some of the LATE SERIES G.

Pedro de Espina, fourth assayer. The rare EARLY SERIES coins with the mark P are probably those of this assayer. His period at the mint can be dated by his signature on a voucher dated October 22, 1541.²⁵ Like Franco, de Espina probably served only briefly. One Pedro de Espina was at the foundry in Mexico City in 1528 and to him was entrusted the position of assayer of the gold smelted there —

²² *Actas de Cabildo*, II, p. 124. He was appointed at the request of Alonso Franco, assay master (*marcador*), who returned to Spain.

²³ TSI, May 27, June 13, and July 15, 1545.

²⁴ Alberto María Carreño, *Un desconocido Cedulario del Siglo XVI*, Mexico, 1944, pp. 395-401. Doc. 213, *Ejecutoria de la Fiscal en la residencia e pleito con Esteban Franco, vecino de México*.

²⁵ TSI, testimony of May 28, 1545.

“... ensayara y marcara los quilates del oro.” In 1533 he was named “marcador desta ciudad... ensayador...”²⁶ As no other individuals with the initial P have been found during these years in the records of the foundry or the mint, we may assume that the Pedro de Espina of each case was one and the same person, and that he was the assayer responsible for the coins of the EARLY SERIES with *señal* P.

Luis Rodríguez, seventh assayer. The common LATE SERIES coinage with the mark L has generally defied attribution, partly because most previous attempts to locate an official to whom the mark might be referred covered only the period 1536–1556. However it now seems clear that the mass of pieces with the marks L and O cannot be fitted into the brief period which would have to be allotted for the LATE SERIES coinage in such a scheme. Rather, the Charles and Johanna coinage continued to be struck into the reign of Philip II, probably as late as 1572,^{26a} and it is in this period that the latest assayers are to be found. It is known that on May 30, 1570, the Council of the Indies notified Philip II of the death of one Luis Rodríguez, “assayer of the mint of Mexico”, and asked instructions as to the conditions under which the office of assayer might be offered for sale.²⁷ Inasmuch as there was no need for the assayer to register the initial of his family name one may assume the mark L to have been that of Luis Rodríguez.

The assayers who used the marks A, S, and O — probably the fifth, sixth, and eighth respectively — on the LATE SERIES coinage are unidentified to date. Since O was also the first assayer of the coinage bearing the name of Philip II, his appointment may come to light in the records of that reign. L (Luis Rodríguez) and O evidently alternated as assayer for at least one period, and possibly more, since pieces are known both with L punched over an original O on the die, and vice versa.

²⁶ Pradeau, *Historia Numismática de México*, Mexico, 1950, p. 52, citing L. Anderson, *El Arte de la Platería en México, 1519–1936*, New York, 1941, I, p. 82.

^{26a} See also p. 38.

²⁷ A. G. I. 140–7–32.

Treasurer, *tesorero*

The first treasurer of the mint was Don García Manrique, the Conde de Osorno, who arrived in Mexico with the viceroy in 1535.²⁸ Returning to Spain in 1537, he left as *teniente* or vice-treasurer of the mint Alonso de Mérida, who served from 1537 until 1541, when he returned to Spain.²⁹ On July 20, 1538, the Conde de Osorno resigned his office in favor of his eldest son, Pedro Manrique.³⁰ This did not affect the position of the *teniente*.

Francisco del Rincón, the first assayer, may have been *teniente* treasurer for some period between 1538 and 1543; during the investigation of Tello de Sandoval, testimony was given to this effect.³¹ No other documentation of this possibility has been found.

Juan de Manzanares was appointed vice-treasurer in the place of de Mérida in 1541.³² His signature appears on vouchers dated October 22, 1541; March 17, 1543; August 9, 1544; and February 16, 1545.³³ He was at the mint during May-July 1545. How much longer he served is not known.

Life ownership of the office of treasurer passed to Miguel Manrique, who resided in Spain, from his father, Pedro Manrique, the Conde de Osorno, on November 9, 1555.³⁴

Scribe, *escribano*

The scribes of the mint are known only through scattered references. The names of the following persons have been found:

²⁸ A. G. I. 60-2-6, "El conde de osorno paso a la nueva españa el año de 535 pero no parece la cédula de la merced que se le hizo de tesorero de la cassa." Quoted in Aiton and Wheeler, "The First American Mint," *The Hispanic American Historical Review*, IX, no. 2 (May, 1931), p. 209, n. 35; hereafter referred to as Aiton and Wheeler.

²⁹ TSI, May 28, 1545, voucher of March 22, 1538; and testimony of May 29, 1545.

³⁰ General Index of the papers in the Library of the Royal Academy of History, Madrid.

³¹ TSI, testimony of Gonzalo Pérez, June 8, and Alonso Ponce, June 9.

³² TSI, testimony of May 29, 1545.

³³ TSI, testimony of May 28, 1545.

³⁴ General Index of the papers in the Library of the Royal Academy of History, Madrid.

Pedro Juárez de Carabajal, appointed June 16, 1535.³⁵

Diego Hernández was serving at the mint on March 22, 1538 and February 16, 1545.

Baltazar del Salto was serving on October 22, 1541.

Andrés de Cabrera was serving on March 17, 1543.³⁶

The Bishop of Lugo owned the office of scribe in 1545. Pero Sánchez de la Fuente acted as his *teniente* at the mint and signed documents dated August 9, 1544, and March 18, 1545.³⁷

Die Sinker, *tallador*

Antón de Vides was the first die sinker of the Mexico City mint. He was appointed for a two year term by the viceroy before the mint opened. He served from the beginning until some time after Dec. 10, 1537,³⁸ and was responsible for the dies with which the first coinage, the EARLY SERIES with R, were struck. Whether a new die-sinker appointed by the king then took over the position is unknown although the viceroy mentioned that new appointees to mint offices had arrived in Mexico (see p. 14) late in 1537.

Ambrosio Gutiérrez³⁹ was die sinker at the mint (c. 1540-41) but he died before Feb. 11, 1542, and the appointment was given to Francisco del Rincón (which one of the Francisco's is not known).

One Pedro Salcedo is mentioned as having served as die sinker.⁴⁰ He could have been acting temporarily following the demise of Ambrosio Gutiérrez, in 1541 or early 1542. A Pedro Salcedo was a silver-

³⁵ Aiton and Wheeler, p. 210. This is doubtful at best, since the mint was not opened until some ten months later. Mendoza, to whom the appointments were entrusted, only arrived in Mexico City in November 1535.

³⁶ TSI, May 28, 1545. All three signed *encerramiento* vouchers.

³⁷ TSI, May 28, 1545, voucher signatures; and testimony of May 29.

³⁸ *Col. de Docs. Ined.*, First Series, II, p. 193. The Mendoza letter.

³⁹ Aiton and Wheeler, p. 210, misread Gutiérrez as "Gris," probably from the abbreviation of the name in manuscripts.

⁴⁰ TSI, testimony of the guard, Santa Cruz, June 2, 1545. At this time Salcedo was inspector of weights and scales for the City of Mexico. He was called to the mint on June 20 to test the weights.

smith in Mexico City who on January 12, 1543 was ordered by the town council to make a stamp or die to mark textiles and woven

materials made in the city with the mark $\overset{o}{x}$ M⁴¹

J. T. Medina, without naming his sources, stated that "Francisco del Rincón, as his father once did, likewise renounced his office and placed his resignation in the hands of his Majesty, in favor of Juan de San Pedro. Gaspar de Tebes, the chief royal equerry, who had been appointed to the same office, filed suit against Juan de San Pedro."⁴² Dr. Pradeau and the author have been unable to trace or document this information; if the records of the transaction and suit could be traced in the Archives of the Indies, they should offer considerable new information on the officials and the transfer of offices during the early years of the mint.

Although it was contrary to law for relatives to hold, own or serve in more than one capacity at the mint, this rule apparently did not prevent relatives from holding different positions. Previous to 1545, Alonso del Rincón owned the office of die-sinker and served at the mint.⁴³ He returned to Spain on April 12, 1545, and left at the mint as his *teniente* the Francisco del Rincón who had been previously a foreman and foundryman,⁴⁴ who was working at the mint and who testified at the Sandoval investigation. How long he held the office and who followed him in the position is unknown to the writer.

There is evidence that he was in Chachapoyas, Peru, in December, 1544. His signature appears on a document^{44a} re-appointing him a

⁴¹ *Actas de Cabildo*, IV, pp. 326 and 333.

⁴² *Las Monedas Hispano-Americanas*, Santiago de Chile, 1919, p. 50. So many of the family del Rincón were active in the mints of Spain, Mexico, and Peru, that they are easily confused. They seem to number father, sons, brothers, and cousins. A Juan de San Pedro was living in Mexico City at the time, but he does not seem to be mentioned in any mint records. *Actas del Cabildo*, Vol. IV, p. 340.

⁴³ TSI, testimony of May 27, 1545; May 29, June 2, June 3, June 5, June 8, and June 9.

⁴⁴ TSI, testimony of June 3, 1545.

^{44a} Harkness Collection of Spanish Manuscripts Concerning Peru, Nos. 1195 and 1196, Library of Congress. The signature on this document is identical with that of Del Rincón on the TSI papers.

manager of mines at that city. How he could have been active at the Mexico mint and simultaneously a manager of mines in Chachapoyas is an unsolved mystery.

Justices of the mint, *alcaldes*

Lic. Castañeda, 1543-1555, appointed by the king.

Lic. Alemán, 1545, appointed by the viceroy.⁴⁵

Judge of the mint, *merino*

Hernando Alonso was serving as *merino* during May-July, 1545, by appointment of the treasurer.⁴⁶

Guards, *guardas*

Francisco de Lerma, at some time during 1538-1543.⁴⁷

Cristóbal de Caniego, or Callego, signed vouchers at the mint on March 22, 1538, and October 22, 1541. He died some time before May 29, 1545.

Juan de Cepeda signed voucher on March 17, 1543.

Juan de Santa Cruz was appointed by the viceroy following the death of Caniego. He was guard at the mint in May-July 1545, where he had served for about three years.

Diego de Madrid signed vouchers as guard on August 9, 1544, and March 18, 1545, and was serving during May-July, 1545. He acted in the absence of Santa Cruz.⁴⁸

⁴⁵ TSI, testimony of May 29, 1545.

⁴⁶ Idem.

⁴⁷ The only mention of de Lerma occurs in TSI, testimony of Alonso Ponce, June 9, 1545.

⁴⁸ On the guards generally, TSI, May 28, 1545, voucher signatures; and testimony of May 29, June 2, and June 9.

Weigh master, *balanzario*

Gabriel del Rincón owned the position in 1544–1545, residing in Spain. Martín del Rincón served in Mexico as his *teniente*. He resigned on August 20, 1544, but continued to live in Mexico City. In 1545 he was trading in silver and taking it to the mint to be coined.

Juan de Cepeda, formerly a guard, was appointed by the treasurer to this office following the resignation of Martín del Rincón. He was serving in May–July, 1545.⁴⁹

Coiners, *acuñadores*

Francisco Hernández, 1542 to July 1545 and later.

Miguel Consuegra his brother, was serving in 1545.

Pedro Bezón, beginning in 1543, was still serving in May–July, 1545.

Gonzalo Pérez, beginning in 1540, was still serving in May–July, 1545.⁵⁰

Foremen, *capataces*

Francisco del Rincón, cousin of the assayer Francisco, about 1540.

Gerónimo de Tuesta, was serving during May–July, 1545.

Alonso Ponce, formerly a workman, was serving as foreman during May–July, 1545. He had been at the mint since it opened.

Antón Sánchez, his brother, a foreman in May–July, 1545, stated that he had been at the mint for about three years, first as a workman.⁵¹

The labor force.

The Indians from the village of Xiquipilco were used as laborers in the mint under the system of *repartimiento*, at least for the first four

⁴⁹ TSI, testimony of May 27, 1545; May 28, May 29, June 3, June 5.

⁵⁰ TSI, testimony of May 29, June 3, June 6, and June 8, 1545.

⁵¹ TSI, testimony of May 29, June 5, and June 9, 1545.

years of operation.⁵² Under this system, which was really serfdom, a weekly allotment of Indians was assigned to the mint for the heavy work, and their Spanish owner collected for their services. Besides the Indians, a number of Negro slaves were employed at the heavier work — some cut and shaped the silver, others hammered the coins. They were said to be “competent and efficient,” and “without them the coins could not be made, inasmuch as the work was very hard and of little interest to the Spaniards, who did not want it nor had the knowledge for it.”⁵³ The difficulty of the work cannot be questioned; during the investigation by Tello de Sandoval it was asserted that some of the slaves had died from the effects of their labors.⁵⁴

⁵² Meek, *op. cit.*, p. 44.

⁵³ TSI, testimony of June 5, 1545.

⁵⁴ TSI, testimony of June 2, 1545.

III

MINT TECHNIQUES: DIE MAKING AND COINING

Little is known of the mint processes and procedure during the period of the Charles and Johanna series. This is hardly strange, for coinage, like the arts and crafts of the middle ages, was a trade jealously guarded, the secrets of which were not published for laymen to learn or practise. The mint workers purchased their positions and paid for the privileges of capitalizing on their skill, which they had learned from their fathers and from years of apprenticeship. Francisco del Rincón, the die sinker, stated that he could teach a new worker to become skillful in three days,¹ but certainly he did not mean the trade of die sinking, but such menial work as an ordinary helper or workman might be assigned to do.

Machinery was not in use. The knowledge and craftsmanship derived from the staff of Spanish officials; the strength and muscle was provided by the Indians and the Negro slaves who did the hot, dirty work, and the hammering.

The Flans

Silver bars bearing the tax collector's seal denoting that the king's fifth had been deducted could be purchased at the foundry.² The trader or merchant who brought his silver to the mint to be coined received

¹ TSI, testimony of June 5, 1545.

² The United States National Museum purchased one of a number of such ingots of silver, brought up from an old wreck off the Florida coast in 1949. It weighs seventy-five pounds Troy, and is stamped with some numbers and designs, undecipherable due to corrosion. Two more stamped ANATA, are in McKee's Museum of Sunken Treasure at Plantation Key, Florida. A fourth, in such good condition that the markings are plain, is on exhibit at the Nassau Development Commission, and is described in *The Lost Treasure of King Philip IV*, Nassau, 1953, by A. J. S. McNickle.

a receipt for so many marks' weight of metal. His silver was marked and stored with a copy of the receipt to await coining. There was some criticism by merchants who were forced to await the delivery of their coins on account of various delays. The mint officials suggested in 1545 that the king deposit one or two thousand marks of silver as a backlog for the mint to coin, that they might thus anticipate any demand. At least part of the trouble lay in the slowness of the foundry to deduct the *quinto* (the King's Fifth paid to the crown from all gold and silver mined) and release the bullion to traders.³

The silver previously assayed at the foundry was again assayed at the mint, and the owner was charged a fee of two reales per ten marks by the assayer for this service. If the quality did not agree with the standard, the owner was notified. If somewhat better than standard, the owner generally allowed it to be coined rather than undergo the expense of returning it to the foundry to be resmelted and re-alloyed; if below standard, the silver was returned to the owner, since the mint officials would have been penalized for coining it.

The bullion was cast into thin bars, and hammered or rolled into strips from which the blanks were cut and rounded. This work was done by Indians or slaves under the supervision of Spanish foremen, *capataces*. The copper blanks were made with more difficulty than the silver. The first flans were brittle and broke under the blow of a hammer. Since the mint staff was unable to overcome the difficulty, the work finally was given out to the Indians of Michoacán, who were well versed in handling copper. They cast the bars, rolled the strips, and delivered the blanks to the mint already cut. During the investigation, Juan Gutiérrez testified that "there had been cut and minted copper money in cuartos of four maravedíes and two maravedíes, and at present (1545) the blanks are being brought, ready cut, from Mechoacán... that the making of the blanks has been done in this manner for two years,⁴ more or less, by the Indians of Mechoacán,

³ TSI, testimony of June 3, 5, and 8, 1545.

⁴ So that copper blanks must have been made at the mint for about a year at most.

who are taught at this mint, and they make them from copper extracted from the Province of Mechoacán... that in this copper money no silver is used, as the viceroy ordered, although by the sovereigns of Castile a certain quantity of silver is used in the copper coinage." He also stated that "the copper money struck at this mint belongs to His Majesty, and none is made for any private individual."⁵

The blanks were weighed by the weigh master, the *balanzario*, and if they averaged correctly (67 reales to the mark for silver; 144 maravedies for copper) they were sent to the coining department. Here the blanks were heat treated or annealed, and passed on to the coiners to be struck between the dies by hand hammering.

In spite of the crude methods employed, the coins of the Charles and Johanna series are of fairly even thickness and are well rounded. They are better made than many of the coins struck at the same mint in later years.

The Dies

No dies of the early days of the Mexico City mint are known to exist. In fact, very few dies of the hand hammering era have survived from any of the European mints. Most of them were literally pounded to pieces. Only eight examples of mediaeval coining tools are preserved in the Royal Mint Museum in London,⁶ and a small series is found in the Vienna Mint Collection.⁷

Whether dies, or more likely the punches to manufacture dies,⁸ were carried by the Mendoza party when they arrived in Mexico in 1535 is not known from any document. However, it seems reasonable to assume that Mendoza, with his knowledge of mint procedure, would have made provision for the necessary tools. Certainly the punches for the earliest R coins were of Spanish manufacture. The

⁵ TSI, testimony of May 27, 1545.

⁶ W. J. Hocking, *Royal Mint Museum Catalogue*, vol. II, p. 3.

⁷ *Katalog Münzen- und Medaillen-Stempel Sammlung des K. K. Hauptmünzamt in Wien* (1901), vol. I, pp. 23-24.

⁸ On the punches see below pp. 32-33.

lions, castles, and letters are typically Spanish in design, and resemble closely the punches of dies used in Spain at this period. If these earliest Mexican punches were not conveyed to the New World by Mendoza, they certainly arrived shortly after him. It may well be that sample dies were also sent as guides for the die sinkers.⁹

Because of the number of punches used to make a die, no two dies were identical. It was possible for a careful workman to punch the dies quickly and with a minimum of effort; but it was impossible to duplicate exactly the spacing of every detail, given the number of parts which had to be hammered into the die one by one. The punches wore and broke at the edges and through their narrowest sections; the breaks widened and finally only a ragged design of the original was left. The broken punches sometimes continued in use until replacements from Spain could be obtained or substitutes could be made locally. Thus the varying stages of wear of a given punch determine a chronological arrangement of the dies on which it was used, and upon that arrangement this catalogue of the Charles and Johanna series is based.

The preparation of the dies — it cannot be called engraving — was under the care of the die sinker, the *tallador*. The shaping of the steel for punches and dies could have been executed by any skilled laborer, but the tempering, the incision of the design into the die, and any secret trade details, were done by the official himself. That the Spaniards were skilled in working and tempering steel is proved by the fine swords and armor of the period.

The steel for the dies having been forged into the proper shape, the end which was to receive the design of the die was smoothed and

⁹ That punches were manufactured in Spain for use in the New World is proved by a document listing a number of punches sent to the Santo Domingo mint in 1573 (A. G. I. 78-2-1, printed in Medina, p. 134; and in *Catalogue of the Julius Guttag Collection*, p. 487.) Fifteen large letters and a cross, together with sixteen other punches — lion, castle, pieces of crowns, etc. — were to be used in the manufacture of dies for coins of four and two reales, and four maravedíes. A second group of letters served for the dies of the one real and two maravedíes pieces. (No mention is made of punches for dies of the eight reales size, an additional proof that coins so large were not issued from American mints until after 1573.)

polished. The die sinker then laid out the design. He began by making a center indentation with a prick punch, around which he cut several circles with a compass, guides for the inner and outer beading. The center mark, a small raised dot, can usually be seen on the coins when it is not covered by some part of the design. The die sinker then proceeded to hammer the design, element by element, with the various punches into the untempered surface of the die.¹⁰ Clearly each die was unique. Not only was it impossible to place each punch exactly, but any carelessness in the spacing of the legend resulted either in a gap at the end of it, to be filled by annulets or crosses, or in a limitation of space which resulted in an almost endless variety of abbreviations. Thus REGES, on the obverse, is found as R, RG, REG, RE, RGS, RGES, REGS, and GS; while INDIARVM became INDIARM, INDIARV, INDIAR, INDIA, INDI, IND, and IN.

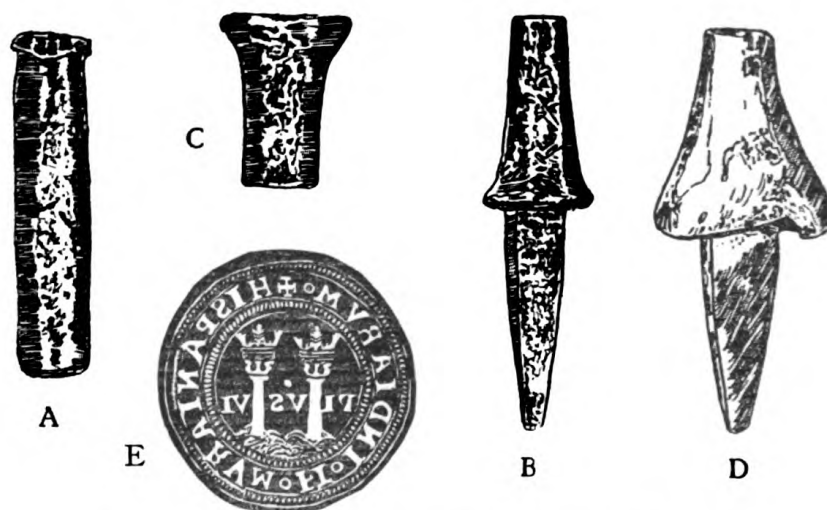
The Coinage

The lower die was sunk into an anvil by means of a tongue at its base which fitted into the block. It was the die with the more elaborate device, the obverse, since it was less liable to be damaged by the repeated blows of striking. It was called the *pila*, or "pile." The upper die, the *troquel* or "trussel," was cut into the end of a rod, receiving

¹⁰ G. MacDonald, *The Evolution of Coinage*, Cambridge, 1910; p. 69. "A common error is the supposition that dies in medieval times were cut directly upon a prepared piece of metal, in the same manner as a seal or intaglio. . . . A die was usually made by the use of a number of irons or punches, each cut to the requisite shape to produce some portion of the design; and these were punched by the die maker into the prepared piece of metal in such a fashion as eventually to make up the complete die. The saving of labor effected by this means is obvious, and it was often used, at any rate in the case of legends, in classical times." Twelve punch designs — circles and crescents of different sizes, dots, etc., — are shown with which the die maker could make the portrait and legend on the short-cross penny of Henry III of England. A little practice would enable an intelligent mechanic to turn out the finished die in a brief space of time and with comparatively little effort. See also Shirley Fox, "Die Making in the Twelfth Century," in *British Numismatic Journal*, First Series. vol. VI (1909), pp. 191-196, quoted by MacDonald.

the direct force of the hammer and thus suffering the greater danger of breaking.¹¹

In use, the blank was laid upon the *pila*, and the *troquel* was held above it while the coiner struck the upper end of the rod with a hammer. A very careful, straight, and heavy blow was necessary to impress the silver blank evenly. Mendoza acknowledged that at the beginning "the workers of the mint toiled very hard but obtained meager results, as the coin continually moved (*la moneda se erraba*), which [then] had to be made over and over again."¹² The dies were movable



HAND HAMMERING DIES AT VIENNA MINT MUSEUM

The upper dies (A and C) were held over the lower dies (B and D) which were set in a hole in an anvil. The designs for the coins were punched into the lower ends of A and C into the tops of B and D. E illustrates how a reverse die of a one real of the LATE SERIES would appear.

so that there is no fixed relation of the obverse of the coins to the reverse. No collars were used on the dies and the breakage rate was high. Virtually no die breaks appear; when a die cracked, it broke,

¹¹ English records show that in hand hammering, fresh dies were issued to provincial mints in the proportion of two reverse (upper) dies for every obverse (lower) die. See MacDonald, *op. cit.*, p. 69.

¹² *Col. de Docs. Ined.* vol. II, First Series, p. 192. Letter of Nov. 18, 1537.

because no collar held the metal together. The short life of a die is illustrated in that nearly every coin examined was from a different pair, although many coins show that they were made from dies made from the same punches.

One of the chief difficulties in cataloguing the varieties stems from the virtual impossibility of listing them by die varieties. The greater part of all hand hammered coins were double and sometimes triple struck. This caused many queer effects in the details on the coins, which were not die details. Double striking can make one of the lions thin, the other fat. It can completely obscure one or more letters of a legend, or it can duplicate them. A coin with the obverse legend ending EGGS in place of REGES can be the result of a double strike; the legend was not cut with that spelling in the die. Similarly, three- and five-legged lions with two tails do not indicate a new die variety.

Variations in individual punch details are a different matter. By a flaw in a letter punch, a tongue on a lion, a break in the left side of a castle, or a slight change in a crown design, the varieties of punches in use to make the dies can be established. The coins have been organized into varieties by this method, and an attempt has been made to place them in the proper order of issuance from the mint.

After the coins were struck they were blanched, a process by which they were cleaned and whitened. They were carefully weighed to ascertain that they averaged sixty-seven reales to the mark. Samples were also taken for assay and for the biennial *encerramiento*; the assayer's mark in the die was of course his guarantee of the purity of the silver content.

IV
THE SILVER AND COPPER COINAGE;
METROLOGY

The Silver Coinage

From the opening of the Mexico City mint silver coins were struck in denominations of one-quarter real (cuartilla), one-half (medio real), one (sencillo), two (real de a dos), and three reales (real de a tres).¹ Their proportionate production was regulated by the original decree: one-half of the silver bullion coined was to be in pieces of one real; one-quarter, in pieces of two and three reales; and one-quarter, in pieces of quarter and half reales. From each mark of bullion minted sixty-seven reales in coin were to be obtained. Two reales of this amount was divided among the mint officials as fees.²

Of the coins struck, several were regarded with disfavor by the populace. The pieces of three reales — an unusual denomination — were quickly found to be unsatisfactory since they were easily confused with the two reales pieces. They were struck only for a short time; late in 1537 the viceroy ordered that they be discontinued, and he wrote to the king explaining his action. On November 18 of that year, the king ordered the mint to coin pieces of the larger size of four and eight reales, "if expedient." Allowing time for the order to reach Mexico, and for the mint to make the dies, it was probably in the spring of 1538 before the coins of four reales were issued. A few are known with the mark R of del Rincón, the first assayer.

¹ The denominations and their types were prescribed by the decree of May 11, 1535 which established the mint. See Appendix.

² The mint fee in Spain was only one real per mark; the higher rate in Mexico was due to the difficulties involved in creating a mint. The original decree establishing the mint provided for a fee of three reales, but actually only two were deducted.

Pieces of eight reales were never issued, although an attempt was made to manufacture them. The process of making large blanks, and of striking coins of dollar size by hand hammering was too slow, difficult, and costly for the mint to support. Occasionally, a so-called Charles and Johanna piece of eight reales appears, but to date all have been fabrications.³ Mint officials testifying at the Tello de Sandoval Investigation stated that "pieces of eight reales had been made and their coinage was discontinued inasmuch as it was very difficult, and they were not circulated."⁴

The silver cuartillas were so small (about the size of the United States silver three cent piece of the 1850's and 60's) that they were most unpopular. That only two are known in the EARLY SERIES with mark R, and one with P, probably indicates how few were struck. On November 12, 1540, the viceroy ordered that "regardless of what the proportions were previously," the coinage of the mint was to be one-third in pieces of four reales; one-third in pieces of two reales; and one-third in pieces of one real and one-half real.⁵

The coinage of the cuartilla was thereby discontinued, although many persons complained that the half real was too large a denomination for ordinary purchases. In recognition of the need for money of very small denominations, the queen issued an edict on October 9, 1549, ordering the production of the denominations of one-half, one-quarter, and one-sixteenth real in silver. The one-half real piece was already being struck, and no attempt was made to issue the smaller coins. Cuartillas were not made again until 1794.

The first silver coinage brought some confusion to commercial transactions in Mexico. Before the mint opened, some silver coin had been

³ See Plate XIII, 1 and 3.

⁴ TSI, testimony of May 27, 1545, by Juan Gutiérrez. Similar statements were entered by Francisco del Rincón, the die sinker, on June 5, and by Alonso Ponce on June 9.

⁵ Mendoza ordinance, in Diego de Encinas, *Libro de Provisiones, Cédulas, Capítulos de ordenanças, Instrucciones y cartas... de los señores Reyes Católicos... y Emperador Don Carlos... y Doña Juana, etc.* Madrid, 1596, III, p. 229. Puga, *Provisiones, Cédulas, Instrucciones de Su Magestad, etc.*, Mexico, 1878, II, p. 49, dates the ordinance as November 12, 1549, evidently a misprint.

brought from Spain, and it was circulating at forty-four maravedies per real because of the risk and the expense of importing it. On May 31, 1535, the queen decreed that two months after publication of the edict, all silver coins were to pass at thirty-four maravedies per real, at par with the coins which were to be minted locally. The devaluation of the imported money was the cause of alarm and uncertainty, as the imported reales had been accepted as equal to the tomín of *tepuzque* gold.⁶ The viceregal ordinance of July 15, 1536, which reduced the value of the real to thirty-four maravedies, nonetheless continued the exchange of one real for one tomín. As a result the silver money generally circulated at a discount, in spite of the law. Finally, the queen issued another *cédula* on February 28, 1538, allowing the imported coin to circulate at forty-four maravedies per real until the end of 1538, when they were to be valued at thirty-four maravedies. Eventually the real became accepted at its lower value.⁷

From certain facts it would appear that the LATE SERIES of Charles and Johanna silver coins (at least those with the assayer's marks L and O) were issued from the Mexico City mint from 1556 until 1572.⁸ This cannot be proven, except indirectly, unless further documentation is discovered in the mint records. The silver coinage in Spain proper bearing the yoke and arrows of Isabella I and Ferdinand V was minted through the reign of Charles and Johanna and well into that of Philip II. In fact it was not until Nov. 23, 1566, that Philip ordered a change in the design of the coinage in Spanish mints.⁹ This order also included a change in the shield to include the arms of all the Spanish dominions, as well as those of Hapsburg. That this order was not applied to the American mints can be seen from the first coinage of the Lima mint. The *cédula* for founding the

⁶ *Actas de Cabildo*, July 5 and 7, 1536.

⁷ See Meek, *op. cit.*, p. 55.

⁸ The theory that the Mexico City coins with pillars and Charles and Johanna's names were minted until 1572 was brought to the attention of the writer in 1951 by A. J. S. McNickle who has been studying the coinages of Philip II. On the same theory, see Tomás Dasí, *Estudio de los reales de a ocho*, Valencia, 1950, I, pp. 94, 102 II, p. 55.

⁹ Herrera, *El Duro*, Vol. 1, p. 13.

mint in Lima, dated August 21, 1565, described the design to be used,¹⁰ which although carrying Philip II's name, still bore the pillars and motto design, similar to that used in Mexico City for Charles and Johanna, with the mint mark P for "Peru". This design is known in a complete series of denominations from one-fourth to eight reales.

It was not until March 8, 1570, that Philip ordered a new design put into use in American mints.¹¹ On June 28, 1570, the Council of the Indies ordered that the sum of 260 ducats be paid to one Juan Paulo Roxini, *escultor*, for steel for and manufacture of the *marcas* and *punzoneria* he had made for the new coinage of New Spain and Peru.¹² The arrival of these new dies and punches in Lima was acknowledged by the viceroy Toledo of Peru in a letter to Philip II in 1572.¹³

When the mint at Potosí, Peru, began operations in 1575, the design with the new shield was used with the cross with castles and lions in the quarters on the reverse instead of the pillars and motto.

Although the theory that the Charles and Johanna LATE SERIES L and O coins were made until 1572 cannot be directly proved, it can however be supported by the following facts or deductions:

1. Philip did not change the pillars design when the Lima mint was opened at his order of Aug. 21, 1565.
2. The first order authorizing a change in design in American mints was dated March 8, 1570. The engraver was paid for the new dies after June 28, 1570, and Lima announced their arrival there in 1572. It seems reasonable to suppose that no mints could alter the coinage design, without orders from the ruler.
3. The Mexico City Charles and Johanna coinage Late Series L assayer was very likely Luis Rodriguez whose death was announced on May 30, 1570 before the Council of the Indies in Spain.¹⁴

¹⁰ J. T. Medina, *Monedas coloniales hispano-americanas*, Santiago de Chile, 1919, pp. 169-172; A.G.I., 109-7-5.

¹¹ A. Herrera, *El Duro*, Madrid, 1914, I, p. 13.

¹² Herrera, *op. cit.*, II, p. 493; (where name is given as Proxini); Medina, *op. cit.*, p. 43; A.G.I., 139-1-12.

¹³ Medina, *op. cit.*, p. 155, no. 26.

¹⁴ Medina, *op. cit.*, p. 43; A.G.I., 140-7-32.

The Copper Coinage

The decree for the founding of the Mexico City mint set no design for the copper coinage as it had for the silver. Rather, it ordered the viceroy, as "a person who . . . has had experience in this matter, having been our Treasurer of the mint of Granada," to order the design and metal for the copper coins, to have them minted, and to send a report on them to the Council of the Indies.

It would appear that both the viceroy and the new mint officials were too busy to plan and execute the orders for the copper pieces until mid-1542.¹⁵ Certainly the necessity existed; the discontinuance of the silver *cuartilla* left the country without coins of small denomination. Since most of the minor market transactions were in terms of prices of less than a half real, the copper pieces would have filled this need. As a matter of fact the Indians disliked copper coins, and writers on the subject all agree that the natives used various types of exchange media other than coins.¹⁶

The copper pieces known to us as the "Santo Domingo type," and which are still excavated in Santo Domingo and Puerto Rico, were probably used to some extent in New Spain. They had been authorized for the island by Ferdinand on December 20, 1505, and again by Johanna on May 10, 1531.¹⁷ They were struck under contract at the mint of Seville or of Burgos, possibly at both. The design, pictured in the catalogue (see p. 127), shows crowned pillars between the letters S and P on the obverse, and a crowned Y ("Ysabel") between F and 4 on the reverse. No pieces of one or two maravedies are known to the author.

On February 28, 1538, Charles issued a decree prohibiting the

¹⁵ Orozco y Berra, *Diccionario Universal de Historia y de Geografía*, Mexico, 1853-1855, V, p. 913.

¹⁶ Cf. Meek, *op. cit.*, pp. 15-31.

¹⁷ *Col. de Docs. Ined.*, Second Series, V, p. 114. Antonio Vives y Escudero, "Reforma Monetaria de los Reyes Católicos," *Boletín de la Sociedad Española de Excursión*, Sept., 1897, p. 117. José Toribio Medina, "La Primera Casa de Moneda que hubo en América," *Revista Chilena de Historia y Geografía*, I (1911), p. 355-6.

coinage of gold and copper in the colonies.¹⁸ Since the Mexico mint had not begun to coin copper (and gold was not considered), the decree served only to delay any plans for the copper coinage which Mendoza had formed. The town council of Mexico City discussed the desirability of copper coinage at various times, and the minutes of July 30, 1540, show that different opinions were current. On April 17, 1542, the *Cabildo* proposed that copper money should not be struck and circulated as long as silver money of small value was in production.¹⁹ In spite of this, the viceroy authorized the copper coinage some ten weeks later. It is safe to assume that no copper was struck at the Mexico City mint until after the viceroy's edict of authorization of June 28, 1542.²⁰

The first copper coins were struck from dies made with the first series of punch designs with which the EARLY SERIES G, F, and P dies were cut. The square K of the obverse is distinctive. The four maravedíes (cuarto), is the only denomination known of this series. The pieces do not show an assayer's initial; it was not necessary to assay the metal since it contained no silver.

Before many of these coins could be struck, the third series of punch designs arrived from Spain. The details of the die design were changed, and were now similar to the dies of the LATE SERIES G coinage. The many varieties of obverse and reverse arrangement of punch details are shown on page 130. The coppers of this series are known in denominations of four and two maravedíes. It was testified in 1545 that the following copper coins had been struck: four maravedíes, two maravedíes, and that patterns of one maravedí had been made although none had been issued.²¹ No pieces of one maravedí are known.

As soon as the copper coins were issued the Indians refused to accept them. The viceroy issued strict orders enforcing their circulation, but even the strictest punishment could not prevent the Indians from

¹⁸ *Docs. Inéd.*, Second Series, V, p. 114.

¹⁹ *Actas de Cabildo*, IV, pp. 204-5 and 278-9.

²⁰ See p. 30, note 4, and Pradeau, *Numismatic History of Mexico*, p. 39.

²¹ TSI, testimony by the vice-treasurer on June 3, 1545.

throwing them into the gutters or into Lake Texcoco "that they might never more be seen."²² Now, some four hundred years later, the coppers are being excavated from the mud of the old lake bed during drainage operations. Most of the copper pieces examined came from this source, thickly caked with hard grey mud in which they had reposed since the sixteenth century.

The Audiencia at Mexico City, in a letter to the king dated March 17, 1545, agreed that copper money should still be made;²³ and the town council minutes of August 16, 1546 mention "the copper money that is made in New Spain."²⁴ However, at least by the meeting of March 6, 1550, the members of the *Cabildo* had agreed that copper money should be discontinued because of its misuse by the Indians, who apparently were still throwing the pieces to the four winds.²⁵ The coining of copper was probably suspended about 1551 or 1552, and it was officially outlawed by the royal decree to that effect of 1565.²⁶ Copper coinage was not again attempted in New Spain until 1814.

The history of copper coinage in Mexico was epitomized by Suárez de Peralta, who wrote in the sixteenth century:

For a long time, at least up to 1579 when I left New Spain, . . . the smallest and most ordinary coin given [as alms] to the Spaniards is the half real of silver because there have not been any [copper] cuartos, and the natives do not know what they would be like. Thus, when I arrived in Spain, . . . and saw cuartos and learned of their circulating value, I was amazed and could not help ask, 'Is it possible that this coin has a value and that one may purchase food with it?'

I remember hearing it said that Viceroy Mendoza had a large quantity of cuartos coined, which he ordered accepted, and they circulated; and this coinage must have been the grossest stupidity

²² Pradeau, *op. cit.* p. 38, citing Torquemada, *La Monarquía Indiana*, Book 5, chapt. XIII, p. 1.

²³ Del Paso y Troncoso, *Epistolario de Nueva España*, Second Series, IV, p. 195.

²⁴ *Actas de Cabildo*, V, p. 148.

²⁵ *Ibid.* V, p. 292-3.

²⁶ *Recopilación*, IV, tit. 23, ley 3.

of the land, since the Indians never wished to receive them, and had no remedy. Instead of accepting the coins, the Indians secretly gathered them and dumped them into the lake, until they put an end to them, and none were seen. When this was realized, no more were ever made.²⁷

Metrology

During the sixteenth century, the weight of individual coins was not specified by law. In all mints, reliance was placed on the principle of averages. The decrees of the period prescribe that a certain number of coins be struck from a stated quantity of metal.²⁸ Any particular piece might be heavy or light as long as the lot in which it was struck weighed true to the mark.²⁹

In the decree establishing the Mexico City mint it was ordered that 67 reales in coin be struck from each mark weight of silver.³⁰ The tests conducted during the Tello de Sandoval investigation confirmed the ratio of 67 reales to the mark. Of this three reales were to be apportioned among the mint workers in fees. During the investigation, the officials were dividing two reales. The fineness of the bullion was set at 11 *dineros*, 4 *granos*, the equivalent of 930.51 thousandths.³¹

The process of weighing the silver coins was described as it was performed at the mint on June 13, 1545, before the visitor Tello de Sandoval and his entourage. Esteban Franco, the assayer of the foundry, was called to the mint to assay the coins of the *encerramientos* and to check the current output by weight.

²⁷ Don Juan Suárez de Peralta, "Tratado del Descubrimiento de las Yndias," *Noticias Históricas de la Nueva España*, Mexico, State Dept. of Education, 1949, pp. 96-7.

²⁸ MacDonald, *The Evolution of coinage*, p. 70.

²⁹ See R. I. Nesmith, *ANS Museum Notes*, I, pp. 93-4.

³⁰ In 1349, Alfonso XI, wishing to re-establish the Roman system of weights, had two mark standards brought to Spain, one from Cologne, the other from Troyes, France. The former was used in weighing metals; the mark of Troyes served to weigh all other matter. The mark of Cologne was equivalent to .507 pound, or 230 grams.

³¹ The *dinero* was a Spanish measure of assay in testing the fineness of silver. Absolute purity was counted as 12 *dineros*, each of which was divided into 24 *granos*. The fineness 930.51 obtained in the silver struck in Mexico until 1729.

The money was kept in piles of four, two, one, and one-half reales. Franco scooped two handfuls (*dos almuerzadas*) of four reales pieces from the pile. On one side of the scales he placed the weight of one mark (which had been certified as correct) and one silver real, and on the other he laid 17 pieces of four reales. They were found to be overweight. He then took another handful from the opposite side of the pile and again weighed seventeen pieces, which also were somewhat overweight.

Moving to the pile of two reales coins, he repeated the process by balancing 34 pieces of that denomination against the mark and one real. Going through the procedure six times in all, he found the coins overweight on four occasions, underweight on one. Franco then weighed the one real coins in lots of 67 against the one mark weight. Four lots taken from different parts of the pile were each overweight. The one-half real coins, 134 to the mark, were heavy in two cases, exact in one. There is no mention in the report that any copper coins were weighed.

On June 22, 1545, certain coins owned by a merchant were brought to the mint and weighed in the same manner, and were found to be overweight "rather generously."³²

Most of the coins examined by the author, although in good to fine condition, were light in weight, even though the earliest at least evidently were struck heavy. A small percentage showed signs of having been filed around the edges, but surprisingly few were holed. It seems probable that the heavier coins disappeared from circulation while the lighter survived.

Before circulation the coins should have averaged in weight as follows:

$\frac{1}{4}$ real	at 268 to the mark	.858 grams
$\frac{1}{2}$ real	at 134	1.716
1 real	at 67	3.432
2 reales	at 34 to the mark & 1 R.	6.865
3 reales	at 22 & 1 R.	10.296
4 reales	at 17 & 1 R.	13.731

³² TSI, testimony of June 22, 1545.

The EARLY SERIES coins of R, G, F, and P are so rare that the weights of the few studied prove nothing, except that the best examples weighed near the standard. They are:

$\frac{1}{4}$ real R	$\frac{1}{2}$ real P	1 real R	2 real R	3 real R	4 real P
.85	1.68	3.37	6.79	10.10	13.57 grams

In the case of the LATE SERIES so many pieces are known that it was possible to select the coins showing the least wear to submit to weighing, and in two instances hoards were available to weigh in lots so that the averages could be obtained in the same manner as originally. A hoard of 25 pieces of 4 reales of series $\overset{\circ}{M}$ -O was weighed with the following interesting results:

8 coins were standard (13.73 grams) or better, the heaviest weighing 13.95 grams. The 8 pieces totaled .53 grams overweight.

17 coins weighed light, from 13.72 down to 13.44 grams. The 17 pieces totaled 1.61 grams underweight.

The 25 coins were therefore a total of 1.08 grams underweight, or .0432 grams per coin in average. Even slight wear would account for the discrepancy. When 9 of the best pieces apart from the hoard were added to it to make a lot of 34 coins, and they were weighed 17 pieces to one mark and one real, even as Franco had weighed them four hundred years before, the lot of 34 was light 1.60 grams. This is less than $\frac{1}{4}$ real light on 67 reales in coin, or a shortage of .80 gram on one mark of 230 grams.

Part of another hoard of one real LATE SERIES pieces came to the writer in quantity, and was weighed in lots of 67 to the mark with the following results:

208 pieces	1 real $\overset{\circ}{M}$ -O averaged	3.312 grams.
42	1 real O- $\overset{\circ}{M}$	3.30
43	1 real $\overset{\circ}{M}$ -L	3.32
34	1 real L- $\overset{\circ}{M}$	3.27
67	1 real L-M	3.28
76	1 real M-L	3.30

The entire 470 coins of assayers L and O averaged 3.304 grms. per l real. All of these showed signs of considerable circulation, and from the fact that they were found buried with many coins of Philip II, they could have circulated for years. None were holed.

The copper coins were generally in such poor condition that they were not systematically weighed. Eleven pieces in better condition in the collection of the American Numismatic Society weighed between 5.23 and 6.63 grms., averaging 5.75 grms. Thirty-six of these coins, the number struck from one mark, would then weigh 207 grms., a total of 23 grms. light. However considerable weight was lost through wear and corrosion.

CATALOGUE

THE CATALOGUE

The coins of the Charles and Johanna series are here listed in two main groups, EARLY SERIES and LATE SERIES, and within these groups by assayer's marks chronologically, as far as can be determined. It was evident that the two groups had to be treated differently. The coins of the EARLY SERIES are quite uncommon – of some only one example has been found. Every piece known to the author has been listed. Many small variations in design and legend have been considered in establishing the list of varieties. The provenance has been given for every piece seen, and brief notes concerning the distinguishing characteristics of each accompany its illustration. Although every die is not represented, a close parallel of every coin known can be found in the catalogue.

The LATE SERIES coins, however, could not possibly be handled in the same manner. Some 2000 pieces have been examined, but inasmuch as each die is a variety in itself, it was necessary to classify them according to changes of specific die details. The obverse varieties have been differentiated on the basis of a change in the design details of either the crown, or the lion, or the castle, or the upper edge of the shield, or even some combination of these. The individual variations of these features are explained in the commentary to the Table of Design Varieties for the LATE SERIES, p. 101. The reverse varieties are differentiated according to the changes of design of the small crowns on the pillars as well as by their relative size. Since in the case of the one-half real pieces no lions and castles appear, and many of them are in poor condition, they have been classified by the relative location and arrangement of the mint mark, assayer's mark, and annulets on the obverse, and by the form of the motto PLVS on the reverse.

An examination of the enlarged photographs of the coins* showed clearly that the dies were not engraved, but had been formed from the impressions of a number of punches, each bearing one element of the total design. The commentary on the EARLY SERIES will illustrate in some detail the type of punches used. It also became evident that three different punch design series were employed. These developed from Gothic to Roman, from KAROLVS to CHAROLVS to CAROLVS, from reverse motto on a panel to reverse motto free on background. Such observations made it possible to plot a rough chronological scheme for the dies. Particularly in the case of the first series of punch designs there is evidence of worn and broken punches for which substitutes were made. In very few instances have two coins been found struck from the same pair of dies, so that the number of dies actually must have been enormous.

The key to the catalogue numbers will enable one to locate in the catalogue any silver coin of either the EARLY or LATE SERIES. A given piece can be checked according to denomination and to the form of the assayer's mark and the mint mark. The resultant number obtained from the key refers to the listing of that piece in the catalogue, where its obverse and reverse types and legends are noted. Some denominations are unknown for some assayer's marks, but numbers (in italics) have been assigned to them in case any examples come to light. Numbers 27 to 30 have been omitted to provide for possible future additions to the EARLY SERIES. A brief summary listing of the copper coinage completes the catalogue.

* See p. 3.

KEY TO CATALOGUE NUMBERS
OF SILVER COINAGE

THE EARLY SERIES

R-G-F-P

1536-1542 (?)

	$\frac{1}{4}$ r.	$\frac{1}{2}$ r.	1 r.	2 r.	4 r.	3 r.
R between pillars (on the reverse)	1*	2	3	4	6	5
G between pillars (on the reverse)	7	8	9	10	11	
$\overset{\circ}{\underset{\circ}{M}}-\overset{\circ}{\underset{\circ}{F}}$ } $\overset{\circ}{\underset{\circ}{P}}-\overset{\circ}{\underset{\circ}{M}}$ } $\overset{\circ}{\underset{\circ}{M}}-\overset{\circ}{\underset{\circ}{P}}$ } on obverse divided by shield	12	13	14	15	16	
	17	18	19	20	21	
	22	23	24	25	26	

* See p. 57 of the catalogue and p. 136 of the appendix for proof that this coin belongs to this series despite the absence of the assayer's mark R.

4*

THE LATE SERIES

G-A-R-S-L-O

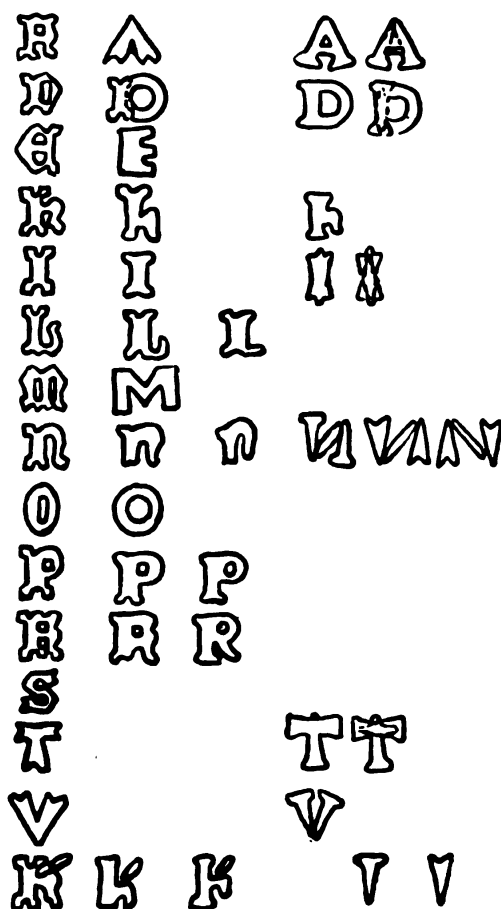
1542 (?)–1570

	$\frac{1}{2}$ r.	1 r.	2 r.	4 r.
$\overset{\circ}{M}-\overset{\circ}{G}$	31	32	33	34
$\overset{\circ}{M}-\overset{\circ}{G}$	35	36	37	38
G- $\overset{\circ}{M}$	39	40	41	42
G-M	43	44	45	46
M-G	47	48	49	50
$\overset{\circ}{M}-G$	51	52	53	54
M-A	55	56	57	58
A-M (or A- $\overset{\circ}{M}$)	59	60	61	62
$\overset{\circ}{M}-A$	63	64	65	66
M-R	67	68	69	70
R-M	71	72	73	74
M-S (or $\overset{\circ}{M}-S$)	75	76	77	78
L-M	79	80	81	82
M-L	83	84	85	86
$\overset{\circ}{M}-L$	87	88	89	90
L- $\overset{\circ}{M}$	91	92	93	94
O-M	95	96	97	98
M-O	99	100	101	102
O- $\overset{\circ}{M}$	103	104	105	106
$\overset{\circ}{M}-O$	107	108	109	110

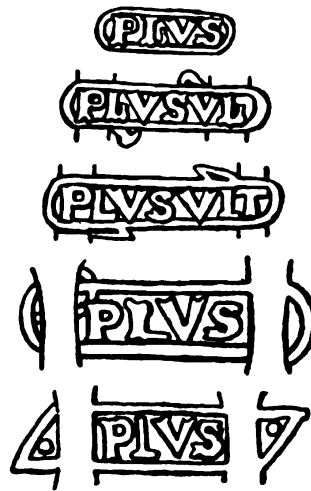
THE EARLY SERIES

R

The earliest output of the Mexico City mint consisted of coins with the assayer's mark R. These were struck from dies formed from the first series of punch designs. This series of punches consisted in part of the fifteen letters necessary for the legends of both obverse and reverse, the mint mark, and the assayer's mark. These letters along with the design of the other punches in the series are illustrated in the figures below.



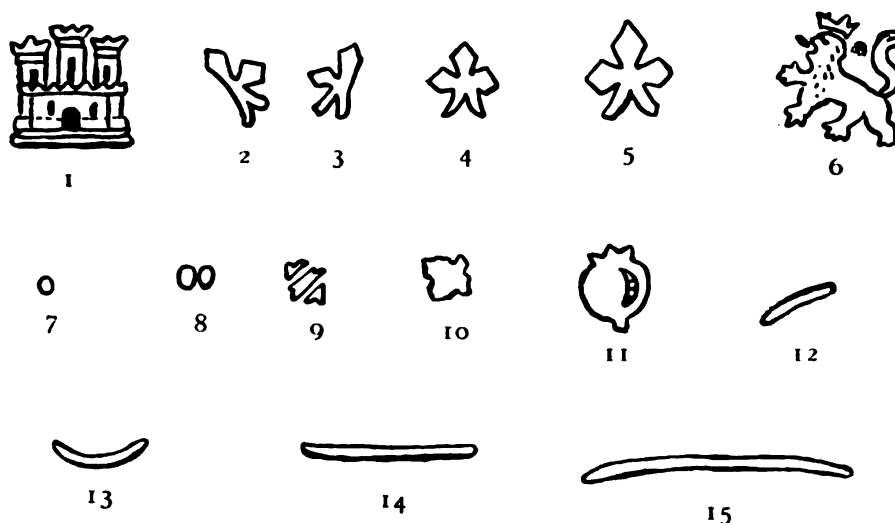
As a result of constant use the letter punches often broke. In their original form they were Gothic letters cut in Spain as shown in the first column of the figure on page 53. The earliest coins (1536) have the largest number of Gothic letters in the legends. As letters broke, crude copies were cut in the mint by native workers. Examples of these can be seen in the columns to the right in the figure. Those shown at the furthestmost right are the substitutions found on the last of the R coins. These substitutes were made with the tack and wedge shaped punches shown at the bottom. No punch existed for the letter K. When that letter was needed an upper arm was added separately to an H.¹ A smaller group of letters, five in number, served for the reverse motto, an abbreviation of *plus ultra*. The motto appeared on an oval panel in front of the pillars. Gradually the panel became elongated, moving behind the pillars, and at the end of the series developing into a rhomboid (no. 6d).



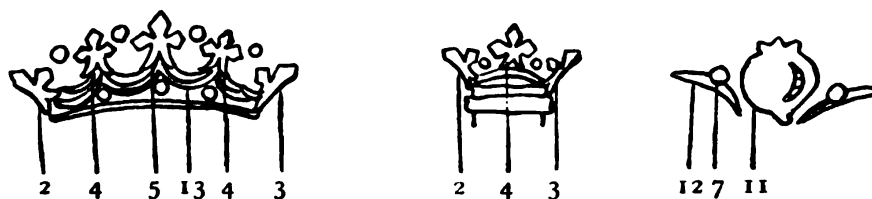
The design of the obverse and reverse types was accomplished through the use of twelve other punches in the series. The rondule (7) was used to separate words, denote the denomination, and to combine

¹ The Gothic **h** was misread as L by the compiler of the Vidal Quadras y Ramon catalogue.

with other punches to form the obverse crown and pomegranate. Another device to separate words was punch 9 which is often found quite worn (see 10).



The beading forming the border on both obverse and reverse was stamped with a punch of two rondules (no. 8) in the use of which one rondule was rested in a bead of the first impression to guide the position of the second, etc. A single punch, or perhaps several, was used in the manufacture of the lion and of the castle in the obverse die. Both obverse and reverse crowns employed the same parts (no. 2-5) as well as various lines and curves (nos. 13-15).



The pomegranate consisted of the fruit (no. 11) and the leaves (nos. 7 and 12). The manner in which all these punches were combined to produce the finished dies can be seen by examining their reproductions on the overlays to the enlarged photographs of the one real coin of this series between pages 56 and 57.

ENLARGED
ONE REAL EARLY SERIES

R No. 3

Showing use and placement of punches
in first series of die punches





ONE REAR VIEW SERIES AND
R No. 3, Reverse
(See p. 33 for punch design numbers)



ONE REAL EARLY SERIES

R No. 3 Obverse

(See p. 55 for punch design numbers)



ONE REAL EARLY SERIES
R No. 3 Reverse
(See p. 55 for punch design numbers)



ONE SERIES YMAA SERIES ENO
R No. 3
(See p. 15 for description of design)



EARLY SERIES

R

Cuartilla

I.



Q·AROLVS·ET·IOHANA
HI·SPANIA·ET·IR·D·

ANS (Wayte Raymond coll.), 18 mm., .85 grms.

No assayer's mark, but the details of design definitely place it under R. Large K on obverse for KAROLVS, I on reverse for IOHANA, the design prescribed for silver cuartillas in decree establishing mint. Letter A on reverse is already a substitute for original Gothic punch. Nos. 1 and 1a, as well as no. 22, are the only coins of the Charles and Johanna series without pillars. Note the spelling CAROLVS on both varieties, unusual in the EARLY SERIES.

1 a.



(actual size)



(enlarged)

•D•AROLVS•ET•IO(RR)

•ET•INDIAR•D•GR

Museo Nacional de Historia, Mexico, 16 mm., .75 grms.

Obverse similar to 1, but no rondule between arms of K. Reverse differs in legend, omitting HISPANIE, adding D. GR (*Dei Gratia*) and in the omission of the rondules above and below the M's at either side of the crowned pillar.

One-Half Real

2.



(actual size)



(enlarged)

**X:KROLVS:ET:IOHANN:RE:
:X:ISPANIA:ET:INDIARVM**

PLVS

Lucio Laguette coll.

Crowned KI on obverse, the I Gothic style script. On reverse crowned pillar behind motto PLVS on panel. Two rondules in pale separate words. Note KA or KROLVS and ISPANIE in legends. Additional examples in Banco Nacional de México, S. A., and ANS (Wayte Raymond coll.), 20 mm., 1.62 grms.

One Real

Obverse, crowned shield with emblems of Castile, Leon, and Granada. Mint letter at each side of shield with rondules above and below. Reverse, crowned pillars of Hercules, connected by panel with motto PLVS, PLVSV, or PLVSVL. Below, assayer's mark R. No mark of denomination. Two rondules between words. Obverse legends on 3c and 3e end with letter appearing to be V, but probably a Gothic D (for *Dei*). The breakdown in original letter punches can be seen by following the changes in L, O, A, N, and M.

3.



**KAROLVS X ET IOHANNES
X HIS PANIE X ET INDIARVM PLVSV**

O. K. Rumbel coll., 24 mm., 3.36 grms.

Eleven rondules above crown. Original Gothic A on obverse, M on reverse. Crude I on obverse, A on reverse. Motto PLVSV.

3a.



KAROLVS ET IOHAN
PLVSV
ET IOHAN

José Tamborrel coll.

Four rondules above crown. Obverse legend ends IOHAN. Motto PLVSV. Additional examples in Clyde Hubbard coll., 24 mm., 3.12 grms; 25 mm., 3.32 grms.

3b.



KAROLVS ET IOH
PLVS
ET IOH

Alfredo Porraz coll., 26 mm., 3.25 grms.

Obverse legend ends IOH. Motto PLVS. Additional examples in Banco Nacional de México, S. A.; Clyde Hubbard coll., O. K. Rumbel coll. (obv. legend ending IOHA); and G. C. Martin coll. (IOHA), 25 mm., 3.28 gms.

3c.



KAROLVS:ET:IOHANNES:V **PLVSVL**
:X:HISPANIE:ET:INDIARVM

Alfredo Porraz coll., 25 mm., 3.25 grms.

Obverse legend ends in Gothic D. Motto PLVSVL. M and O are now not Gothic. Additional examples in Lucio Laguerre and A. R. Perpall colls.

3d.



:KAROLVS:ET:IOHANNES:V **PLVSVL**
:X:HISPANIE:ET:INDIARVM

A. R. Perpall coll., 25 mm., 3.29 grms.

Crude A on obverse. Motto PLVSVL. An example with reverse 3e. is in O. K. Rumbel coll.; with rev. 3b in F. S. Angert coll., 25 mm., 3.29 grms.

3e.



KAROLVS:ET:IOHANNES:PLVSVL
✠:HISPANIA:ET:INDIARVM

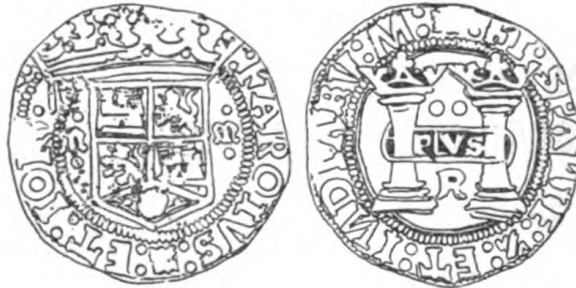
H. L. Freeman coll., 25 mm., 3.32 grms.

Legend as 3c, but no annulets after M ending reverse legend. Crude D, made with I and O punches, substitutes for Gothic D in INDIARVM. Motto PLVSVL. Examples also in ANS (Wayte Raymond coll.), 24 mm., 3.14 grms.; Humberto F. Burzio coll., Clyde Hubbard coll., 25 mm., 3.24 grms.

Two Reales

The design is generally that of the one real coin. Above the reverse panel are two rondules to indicate denomination. The examples noted have original Gothic letters H, K, S, and L (in part). All other letters are crudely recut. If earlier pieces do exist, they will be identified by the Gothic style of the legend. The motto of all pieces seen is PLVS.

4.



:KAROLVS:X:ET:IOH.....

:X:HI:SPANIE:X:ET:INDIARVM

PLVS

F. C. C. Boyd coll. (Guttag 2424), 27 mm., 6.64 grms.

Crude block M in reverse legend.

4a.



KAROLVS:X:ET X IOHAN

X:HI:SPANIE:ET:X:INDIARVM:R

PLVS

A. R. Perpall coll., 28 mm., 6.71 grms.

The Gothic L is now lost, a crude form of the letter supplanting it.

4b.



KAROLVS: X: ET NIOH

: X: HISPANIE: X: ET: INDIARV: M

PLVS

Museo Nacional de Historia, Mexico

The final M of the reverse legend is original Gothic. Additional examples in V. Q. R., no. 6912 (pl. 26,20) (reading PLV, but original was probably PLVS); Fonrobert 6216, and Ulex 1207.

Three Reales

This unusual denomination was struck only in this series. Discontinued in late 1537 to be replaced by coins of four reales, it was never struck again. The number of original Gothic letters has been taken to determine the order of issuance. The motto is consistently PLVSVLT except on 5 d.

5.



†:KAROLVS:ET:IOHANN:DEIGRA:V(?) ...
 †:HISPANIA:ET:INDIARVM:REGES PLVSVLT

F. J. Angert coll., 35 mm., 10.00 grms.

Legends of this coin and 5a, the two earliest of this denomination known, are the most nearly complete of the series, since obverse crown remains within beaded circle. Single or double rondule between words. Waves may have been added to coin after striking.

5a.



†:KAROLVS:ET:IOHANN:DAIGRA:R
:A:HISPANIE X:ET:INDIARVX:M

PLVSVL

F. J. Angert coll., 35 mm., 9.90 grms.

M and D on obverse and reverse are later punches, the latter manufactured from I and O.

5b.



KARO...ET:IOHANN:?:
?:HISPANIE X:ET:.....RVX:M?

PLVSVL

Salvador Illanes coll.

Gothic O gives way to cruder type. The lion punch is a native imitation of the original Spanish lion. Obverse legend may end in a Gothic D.

5c.



KAR...VS:ET:IOHANA:
:HISPANIE:ET:INDIARVM: **PLVSIT**

F. C. C. Boyd coll., 31 mm., 9.90 grms.

New forms of A and N now replace Gothic type. Additional examples in ANS, 32 mm., 9.71 grms.; Hispanic Society of America, 31 mm. 9.75 grms.; Casa Pardo coll., 32 mm., 10.10 grms.; P.K. Anderson coll. (Huth-Gutttag 2423 A); J. J. J. Dos Santos coll., 3655; V. Q. R. 6911 (pl. 26, 19).

5d.



KAROLVS X:ET:IOHANA:
:HISPANIE:ET:INDIARVM **III**
PLVSIT

Museo Nacional de Historia, Mexico, 31 mm., 9.50 grms.

Undoubtedly last design of the three reales coin. Only H, K, R, and S remain of original Gothic letters. Note the three strokes which have replaced dots over reverse panel. Motto, PLVSIT. Another example in F. J. Angert coll., 30 mm., 10.10 grms., whose legend is that reproduced here.

Four Reales

The coins, the largest issued by an American mint until the eight reales pieces of Philip II, were not struck until those of three reales had been discontinued, appearing probably in 1538 toward the end of the term of office of Francisco del Rincón. The letter punches are plainly not Gothic. The earliest illustration of one of this issue appeared as a woodcut entitled "Realen vān vieren van gewichte aladvenant" in a book of instructions to money changers printed by Kornelis van Alkemade, Antwerp-Rotterdam, 1633. Heiss reprints the illustration as does Dasí. E. H. Adams, in *The Coin Collector's Journal*, November 1934, illustrated a counterfeit piece of eight reales of similar design. The fabricator used Heiss' engraving as a pattern, but copied the many errors of the woodcut, creating a design and denomination never issued by the mint at Mexico City. J. T. Medina illustrates a piece of four reales of the EARLY SERIES with assayer's mark P (*Las Monedas Coloniales Hispano-Americanas*, p. 66, no. 2), actually an R defaced by wear or weakly struck.

6.



•KAROLVS•X•ET•IOHANA
 •X•HISPANIE•X•ET•INDIARVM•RE (PLVS)

O. K. Rumbel coll., 32 mm., 13.03 grms.

Two rondules follow ET on reverse. Another example in L. S. Forrer coll. (*The Numismatist*, July 1950).

6a.



**:KAROLVS:ET:IOOHANA PLVS
:HISPANIE:X:ET:X:INDIARVM:X**

Lucio Laguette coll.

Number 9 punch between rondules following ET on reverse. IOOHANA and multiple rondules are result of double striking.

6b.



**:KAROLVS:X:ET:IOHAN: PLVS
:HISPANIE:X:ET:INDIARVM:RE:X**

Clyde Hubbard coll., 30 mm., 13.35 grms.

Similar to 6, but obverse legend ends IOHAN: Another example, Salbach 3219, not illustrated.

6c.



:KISPANIE:X:ETN:INDIARV:M:R
PLVS

Clyde Hubbard coll., 30 mm., 13.45 grms.

Obverse legend as 6b, but reverse legend ends with R. Number 9 punch and two rondules after ET on reverse.

6d.



:KAROLVS:X:ET:IOBANA
:X:KIS:PANIE:X:ET:X:INDIARV:M

4
PLVS 7

Alfredo Porraz coll., 32 mm., 12.75 grms.

Reverse motto panel has changed to a rhomboid, pointing right. Other examples in José W. Gómez coll.; J. T. Medina, *Las Monedas Coloniales Hispano-Americanas*, p. 66, no. 2.

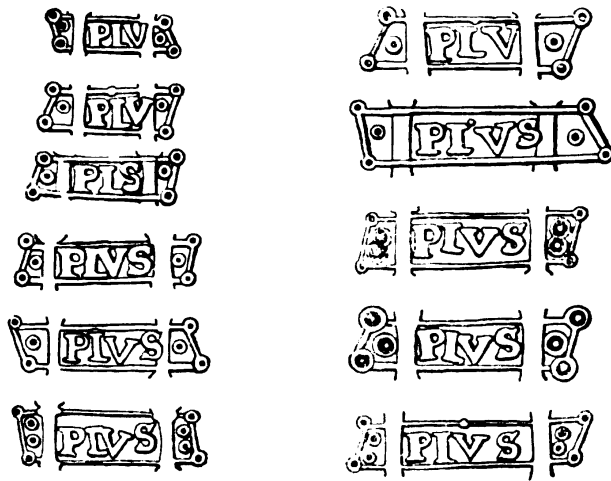
EARLY SERIES

G-F-P

The general design of the coinage with assayer's marks G, F, and P did not change from that of mark R, but a new (the second) series of punches was used to make the dies. It is likely that the set of punches were cut in Mexico by skilled Indian workers, for they are not as delicate nor as Spanish in style as those used for the earliest dies. The castle is not Spanish, but is rather like an Aztec ideograph. The lion is no longer crowned, and appears to have been designed by a native unfamiliar with the animal. Both lion and castle are now impressed with a group of punches, the design being too difficult to cut on one punch in entirety. For the lion, one punch included the body and head, while the legs and tail were added separately. The pomegranate is reduced in size, to fit a smaller triangle at the base of the shield. No waves appear at the base of the pillars.

The lettering and mint mark were made with a redesigned font of punches, now of Roman rather than Gothic type. Various stops divide words, such as rondules in annulets, quatrefoils, crosses and lozenges. The legend varies in length and spelling.

The shape of the reverse panel has altered from an oval, used under R, to a rhomboid, placed behind the pillars, pointing either to the left or to the right. At the corners of the panel, annulets or rondules with annulets appear, as they do singly or in pairs on the ends of the panel, beyond the pillars. The motto never appears in full because of lack of space. It was abbreviated to PLS, PLV, and PLVS. Only on the R coins, where the panel appeared in front of the pillars, was there space for PLVSVLT to be inscribed.



FORMS OF REVERSE MOTTO ON
G—F—P

SECOND PUNCH DESIGN SERIES

FOR EARLY SERIES G-F-P

A D E F G H I K L M N O P R S T V

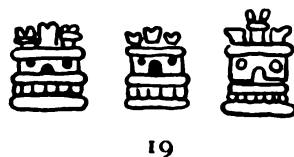
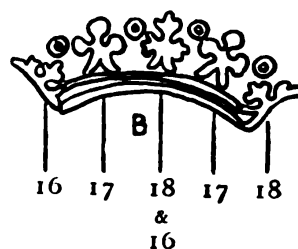
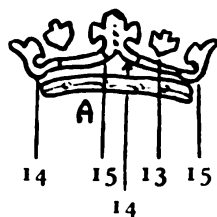
1

P L V S

2

4

3



1. Letter punches (17) for legends. 2. Letter punches [for reverse motto
3. Denomination indication. 4. Rondule. 5. Rondules for beading. 6. An-
nulet. 7. Rondule in annulet. 8. Lozenge. 9. Mascle. 10-11. Quatrefoils.
12. Cross potent. 13-18. Crown decorations. 19. Castle. 20. Pomegranate.
21. Lions.

ENLARGED
TWO REALES EARLY SERIES

P-M No. 20

Showing use and placement of punches
in second series of punch designs





SEAL OF THE UNIVERSITY OF CALIFORNIA
(Seal of the University of California, 1868-1896)
The seal of the University of California, 1868-1896, is a circular seal. It features a central shield with a castle, a lion, and a cross. The shield is surrounded by a decorative border of grapevines and leaves. The entire seal is rendered in a reddish-brown color.



TWO REALES EARLY SERIES

P-M No. 20 Obverse

(See p. 74 for punch design numbers)



UNIVERSITY OF CALIFORNIA

Library of the

(Specialized in the study of the history of the book)



EARLY SERIES

G (Juan Gutiérrez)

Of this group the coins of Gutiérrez are the earliest, as is seen in the position of the assayer's mark, on the reverse between the bases of the pillars. Only the first coins, those of del Rincón, are similar.

Cuartilla

7. No example located.

One-half Real

8.



(enlarged)

⌘ KAROLVS ⌘ ET ⌘ IOHAN
⌘ HISPANIARVM ⌘ ET ⌘ IN PLV

O. K. Rumbel coll., 19.5 mm., 1.40 grms.

Five annulets above crown, quatrefoils between words in legend. Rhomboid reverse panel points right. Motto PLV. Additional examples in F. J. Angert coll., 19 mm., 1.30 grms.; Banco Nacional de México, S. A.

8a.



⌘ KAROLVS ⌘ ET ⌘ IOANA ⌘ RE
⌘ HISPANIARVM ⌘ ET ⌘ IN PLV

G. C. Martin coll., 19 mm., 1.41 grms.

Three annulets above crown, quatrefoils between words. Johanna's name appears as IOANA. Motto PLV.

One Real

9.



(enlarged)

⌘KAROLVS⌘ET⌘IOHA PLVS
 ⌘HISPANIARVM⌘ET⌘INDIAR

ANS (Nesmith coll.), 23 mm., 3.35 grms.

Quatrefoils between words on obverse, lozenges on reverse. Reverse panel points left.

9a.



⌘KAROLVS⌘ET⌘IOHA⌘ PLVS
 ⌘HISPANIARVM⌘ET⌘INDIAR

T. V. Purrington coll., 23 mm., 3.14 grms.

Lozenges between words on both obverse and reverse. Another example in V. Q. R. 6884 (pl. 26,7), 24 mm.

9b.



✠KAROLVS✠(ET✠)IOHA
✠HISPANIA(RVM✠)ET✠INDIA PLVS

O. K. Rumbel coll., 23 mm., 3.13 grms.

Similar to 9a, but reverse legend ends INDIA. The example in the F. G. Angert coll., 23 mm., 3.20 grms., has lions and castles similar to those of 10. Other examples of 9b in Alfredo Porraz coll., 23 mm., 3.25 grms.; Clyde Hubbard coll., 23 mm., 3.15 grms.; Banco Nacional de México, S. A.; Salvador Illanes coll.

Two Reales

10.



✠KAROLVS [•••] IOHANA •
✠HISPANIA RVM • ET [•••] DIARV PLVS

O. K. Rumbel coll., 26 mm., 6.09 grms.

Reverse panel points left. Lozenges separate words on both obverse and reverse. Reverse motto PLVS. Additional examples in R. H. Wilson coll. (with rev. 10), 25 mm., 6.31 grms.; Heiss I, pl. 27,8 (with rev. 10c), 6.70 grms.

10a.



✠KAROLVS♦ET♦IOHANA PLV
✠HISPANIARVM ✠ET✠INDIAR

ANS (Wayte Raymond coll.), 26 mm., 6.54 grms.

Rhomboid panel points right. Lozenges separate words on obverse, quatrefoils on reverse. Motto PLV. Another example in F. C. C. Boyd coll. (Guttag 2425), 26 mm., 6.70 grms.

10b.



✠KAROLVS✠ET✠IOHANA✠ PLV
✠HISPANIARVM ✠ET✠INDIAR

Lucio Laguette coll.

Reverse panel to right. Quatrefoils between words on both obverse and reverse. Motto PLV.

10c.



✠ KAROLVS ✠ ET ✠ IOHANA ✠
 ✠ HISPANIARVM ✠ ET ✠ INDIARVM ✠ PLVS

Lucio Laguette coll.

Reverse panel to left. Quatrefoils between words on obverse, lozenges on reverse. PLVS.

Four Reales

11.



✠ KAROLVS ✠ ET ✠ IOHANA ✠ RE ✠ PLVS
 ✠ HISPANIARVM ✠ ET ✠ INDIARVM ✠ RE ✠

H. F. Burzio coll., 31 mm., 13.50 grms.

Reverse panels point left. Lozenges in both obverse and reverse legends. Motto PLVS. Another example in J. T. Medina, *Las Monedas Coloniales Hispano-Americanas*, p. 65, no. 1.

11a. Obverse legend punctuated by quatrefoils, ending IOHANA ✠ R. Reverse as 11. Illustrated in Heiss I, pl. 27,5 = V. Q. R. 6882.

EARLY SERIES

F (Esteban Franco)

The rare coins of Franco were struck only during a brief period, possibly about 1538-40 during the absence of Juan Gutiérrez. Until 1945 the only examples known were V. Q. R. 6880 and 6881, and Ulex 1215. The design is similar to that of the coins of Gutiérrez, except that the assayer's mark has been removed from the reverse between the pillars, and is found at the right of the shield on the obverse, balancing the mint mark.

Cuartilla

12. No example known.

One-half Real

13.



Hispanic Society of America no. 233, 20 mm., 1.56 grms.

Three annulets above crown. Quatrefoils between words on both obverse and reverse. Reverse panel points left. PLV. Another example in Clyde Hubbard coll., 19 mm., 1.30 grms.

14.

One Real



[K]AROLVS ET IOHANA
[H]ISPANIARVM ET INDIAR PLVS

O. K. Rumbel coll., 24 mm., 3.16 grms.

Reverse panel points left. Quatrefoils in obverse legend, lozenges in reverse. PLVS. Additional examples in Lucio Laguerre coll.; V. Q. R. 6881 (pl. 26,6), 25 mm.; Ulex 1215.

15.

Two Reales



KAROLVS ET IOHANA
HISPANIARVM ET INDIARV PLVS

A. R. Perpall coll., 27 mm., 6.66 grms.

Reverse panel points left. Lozenges in legends on both obverse and reverse. PLVS. Example also in a Mexican collection, 26 mm., 3.96 grms.; V. Q. R. 6880 (pl. 26,5).

6

Four Reales



✠ KAROLVS ♦ ET ♦ IOHANA ♦ RE PLVS
 ✠ [HIS] PANIARVM ♦ ET ♦ INDIARVM ♦ RE

Hispanic Society of America no. 784, 32 mm., 11.68 grms.

Reverse panel points left. Lozenges in both legends. PLVS. The only example noted.

P (Pedro de Espina)

$\overset{\circ}{P}-\overset{\circ}{M}$

The coins of de Espina, struck around October 1541, fall into two groups: $\overset{\circ}{P}-\overset{\circ}{M}$, in which the mint mark appears to the right of the shield, the assayer's mark to the left; and $\overset{\circ}{M}-\overset{\circ}{P}$, in which the order is reversed. The former group is the rarest of all the coins of the Charles and Johanna EARLY SERIES. Neither the cuartilla nor the four reales piece has been found by the author. As was the case with Franco, de Espina must have served only for a short time.

The notable features of this series are the use of rondules in annulets, rather than either rondules or annulets separately; IOAN or IOANA instead of IOHANA; HISPANDIE or HISPANIE instead of HISPANIARVM; and the large pomegranate on the obverse shield, as that of the R series.

Cuartilla

17. No example known.

One-half Real

18.



**•KAROLVS•ET•IO•MANA•
•HISPANIE•ET•INDIAR PLV**

Clyde Hubbard coll., 18 mm., 1.21 grms.

Four annulets above crown, annulets in pale between words in legend. Reverse panel points right. Motto PLV. Note that M in IO⁸MANA is a die error.

One Real

19.



**[KAR] OLV⁸•ET•IOAN⁸
•HIS⁸PANIE⁸•ET•INDIARV⁸ PLVS**

O. K. Rumbel coll., 24 mm., 3.18 grms.

Lions and castles reversed in panels of shield. Rondules in annulets between words in legend. Reverse panel to left. Motto PLVS. The large pomegranate dates back to the R series.

19a.



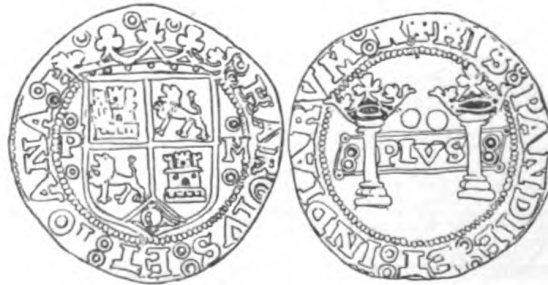
**KAROLVS ET IOANA PLVS
HISPANIE ET INDIARVM**

Lucio Laguette coll.

Lions and castles in usual panels. Otherwise similar to 19, but reverse panel points right. No rondules or annulets above or below mintmark or assayer's mark.

Two Reales

20.



**KAROLVS ET IOANA R PLVS
HISPANDIE ET INDIARVM R**

F. C. C. Boyd coll. (Gutttag 2427 A), 28 mm., 6.45 grms.

Rondules in annulets between words. PLVS on panel pointing right. Another example, badly holed was seen in photograph from a Guatemalan collection, owner unknown. Note large pomegranate.

Four Reales

21. No example known.

$\overset{\circ}{M}-\overset{\circ}{P}$

The coins of this series are considerably more common than those just preceding. They comprise a complete series from *cuartilla* to four reales, although of the first denomination only one example has been found. They are of the same style as the F and $\overset{\circ}{P}-\overset{\circ}{M}$ coinage, and probably were among the last of the EARLY SERIES pieces. A point of liason with the $\overset{\circ}{P}-\overset{\circ}{M}$ group is seen in the spellings IOANA of nos. 23 and 25 c, and HISPANIE of 23, 25 c and 25 d; the balance of the pieces seen bear IOHANA and HISPANIARVM.

Cuartilla

22.



**✠H^oAROLVS:ET:IOA
HISPANIARVM^o E (?)**

ANS (Wayte Raymond coll.), 17 mm., .80 grms.

No annulets above or below M and P, which appear on the reverse. This piece and nos. 1 and 1a are the only coins of this denomination which have been located.

One-half Real

23.



✠KAROLVS✠ET✠IOANA✠RE
✠HISPANIE✠ET✠INDIAR PLV

Clyde Hubbard coll., 18 mm., 1.55 grms.

Three annulets above crown. Quatrefoils divide words on both obverse and reverse. An annulet is used for O in KAROLVS. Note IOANA and HISPANIE. Reverse panel points left. Motto PLV. Additional examples in F. C. C. Boyd coll. (Gutttag 2428), 19 mm., 1.68 grms.; ANS (Wayte Raymond coll.), 19 mm., 1.68 grms.; O. K. Rumbel coll., 19 mm., 1.30 grms.; F. J. Angert coll., 18 mm., 1.50 grms.; Fernand Kososky coll.; Salbach 3229; Ulex 1216.

23a.



✠KAROLVS✠ET✠IOHANA
✠HISPANIARVM✠ET✠IN: PLS

ANS (Wayte Raymond coll.), 21 mm., 1.68 grms.

Five annulets above crown. Mescles divide words, with annulets at ending on reverse. Note IOHANA and HISPANIARVM. Reverse panel to right, PLS. Examples also in Clyde Hubbard coll., 18 mm., 1.45 grms.; Banco Nacional de México, S. A.; Augustin Fischer coll., Scott Sale of April, 1891, no. 7, not illustrated.

23b.



⌘KAROLVS⌘ET⌘IOHANA
⌘HISPANIARVM⌘ET⌘IN: **PLS**

ANS (Wayte Raymond coll.), 20 mm., 1.60 grms.

Eight annulets above crown. Quatrefoil and annulets between words on obverse, mascles on reverse. Reverse panel to right, PLS.

24.

One Real



⌘KAROLVS⌘ET⌘IOHA
⌘HISPANIARVM⌘ET⌘INDIAR **PLVS**

Clyde Hubbard coll., 23 mm., 3.29 grms.

Quatrefoils divide words in obverse legend, lozenges in reverse. Reverse panel to left, PLVS. Additional examples in A. R. Perpall coll., (rev. legend ending INDIA⌘); ANS (rev. 24a).

24a.



⌘KAROLVS⌘ET⌘IOHAN
⌘HISPANIARYM⌘ET⌘INDIA PLVS

Alfredo Porraz coll., 22 mm., 3.25 grms.

Quatrefoils between words of obverse legend, mascles in reverse. Reverse panel to left, PLVS. A second example in F. J. Angert coll., 22 mm., 3.20 grms.

24b.



⌘KAROLVS⌘ET⌘IOHANA⌘
⌘HISPANIARYM⌘ET⌘INDIAR⌘ PLVS

F. C. C. Boyd coll. (Guttag 2426A), 23 mm., 3.22 grms.

Quatretoils between words of legends on obverse and reverse, replacing cross potent at head of reverse legend. Rhomboid panel to right, PLVS.

24c.



⌘KAROLVS⌘ET⌘IOHANA⌘
⌘HISPANIARVM⌘ET⌘INDIA⌘ PLVS

Lucio Laguette coll.

Obverse similar to 24b. Mascles divide reverse legend, ending with annulets. Reverse panel to right, PLVS.

24d.



⌘KAROLVS⌘ET⌘IOHANA⌘
⌘HISPANIARVM⌘ET⌘INDIAR⌘ PLVS

ANS, 23 mm., 3.22 grms.

Obverse similar to 24b. Reverse as 24a but legend ending INDIAR.

24e.



✠KARO HAN PLVS
✠HISPANIARVM•ET•INDIAR

Clyde Hubbard coll., 22 mm., 3.20 grms.

Cross potent begins obverse legend. Lozenges divide words on reverse. Rhomboid panel points right, PLVS.

25.

Two Reales



✠KAROLVS•ET•IOHANA• PLVS
✠HISPANIARVM•ET•INDIARVM

ANS, 25 mm., 6.53 grms.

Lozenges in legends of both obverse and reverse. Reverse panel to left, PLVS.

25 a.



✠KAROLVS✠ET✠IOHANA✠ PLVS
[?]HISPANIARVM✠ET✠INDIARV

O. K. Rumbel coll., 27 mm., 6.53 grms.

Quatrefoils in legends of both obverse and reverse. Rondules in annulets rather than annulets alone found on obverse above and below mint and assayer's marks, on reverse panel, and as marks of denomination. Reverse panel to right, PLVS. Another example in ANS, 27 mm., 6.57 grms.

25 b.



✠KAROLVS✠ET✠IOHAN[A?] PLVS
✠HISPANIARVM✠ET✠INDIARV

Wayte Raymond coll., 28 mm., 6.79 grms.

Lozenges in legends of both obverse and reverse. Reverse panel to left, PLVS. The lions and castles of the obverse shield have been transposed, a situation unusual for Mexico but frequently found on the so-called Charles and Johanna coins of Santo Domingo.

25 c.

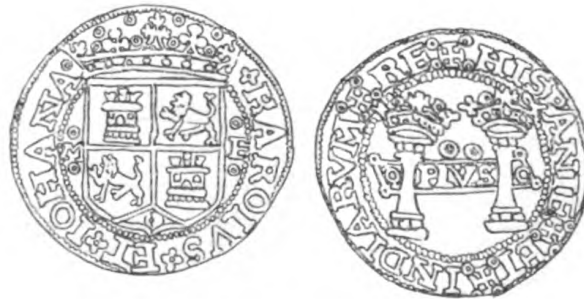


⌘:KAROLVS⌘ET⌘IOANA⌘ PLVS
⌘:HISPANIE⌘ET⌘INDIARVM⌘:RE

Lucio Laguette coll.

Unusual stops between words: obverse, quatrefoils between annulets; reverse, crosses potent between annulets. Reverse panel to left, PLVS.

25 d.



⌘:KAROLVS⌘ET⌘IOHANA⌘
⌘:HISPANIE⌘ET⌘INDIARVM⌘:RE: PLVS

Museo Nacional de Historia, Mexico, 28 mm., 6.60 grms.

Quatrefoils in obverse legend, reverse as 25c. Assayer's mark P broken by beading to resemble F.

25 e. **KAROLVS ET IOHANA PLVS**
HISPANIARVM ET INDIARVM

Clyde Hubbard coll.

Quatrefoils in obverse legend, mascles in reverse. Panel to left PLVS.

25 f. **KAROLVS NAO** **PLVS**
HISPAN ET INDIARV.

A. R. Perpall coll.

Mascles in both obverse and reverse legends. Panel to left, PLVS.

25 g. **KAROLVS ET IOHANAR** **PLVS**
HISPANIARVM ET INDIARVM

A. R. Perpall coll.

Lozenges in legends of both obverse and reverse. Panel to right, PLVS.

Four Reales

26.



KAROLVS ET IOHANA RE PLVS
HISPANIARVM ET INDIARVM RE

Banco Nacional de México, S. A.

Lozenges in legends of both obverse and reverse. Panel to left, PLVS. Arabic 4 indicates denomination, as usual. Another example in ANS (Wayte Raymond coll.), 30 mm., 12.53 grms.

26a.



✠KAROLVS◊ET◊IOHANA◊RE◊PLVS
✠HISPANIARVM◊ET◊INDIARVM◊RE

H. L. Freeman coll., 31 mm., 13.57 grms.

Mascles in both legends. Panel points right, PLVS. A variety in V. Q. R. 6909 (pl. 26,17), and in the Hispanic Society of America no. 27069, has obv. of 26 and rev. of 26a but reverse legend ends in R.

26b.



✠KAROLVS◊ET◊IOHANA[...?] PLVS
✠HIS[PANIARVM]◊ET◊[INDIARVM]◊RE

Alfredo Porraz coll., 30 mm., 13.25 grms.

Lozenges in obverse legend, quatrefoils in reverse. Panel points left, PLVS.

26c. Quatrefoils in both legends. Above and below mint and assayer's marks on obverse, and on reverse panel, rondules in annulets. Panel to left, PLVS. Illustrated in J. T. Medina, *Las Monedas Coloniales Hispano-Americanas*, p. 66, no. 3.

THE LATE SERIES

G-A-R-S-L-O

1542-1572

About the year 1542 a new series of die punches arrived from Spain. The designs were somewhat smaller than those of the EARLY SERIES, and were an adaptation of them. The new designs, the third punch design series, are illustrated on page 98.

Aside from the new punches, the differences in the LATE SERIES design distinguishing these coins from those of the EARLY SERIES are:

1. Waves appear at the bases of the pillars on the reverse to denote the Atlantic.
2. Charles' name is first spelled CHAROLVS, later CAROLVS.
3. The motto PLVS VLTRA, divided by the pillars, appears not on a ribbon or panel, but on the background.

The coins of the LATE SERIES are found with assayers' marks G (Juan Gutiérrez), A (unknown), R (Francisco del Rincón), S (unknown), L (Luis Rodríguez), and O (unknown). The L and O coinages were the latest, and fell at least partly, and possibly completely, into the first period of the reign of Philip II (1556-1570).

Of the more than 2400 pieces of the LATE SERIES which were examined, 12 per cent carry the mark G, about 3 per cent is divided among the A, R, and S coins, 43 per cent read L, and 41 per cent read O. The scarcity of the A, R, and S pieces demonstrates that they were minted only for short periods.

Classification of Varieties.

The coins have been classified according to die design varieties. The obverse dies are differentiated by the design details of the crown, the lion, the castle, and the upper edge of the shield. The design of the crown on the pillars has been used as the basis of the catalogue of the

reverses. The obverse legends have been assigned numbers, the reverse legends, lower case letters.

The one-half real pieces are catalogued according to the arrangement of the mint and assayer's marks with annulets on the obverse, and the form of the motto on the reverse. Please note that in the case of this denomination only, $\overset{\circ}{M}$ as mint mark in the catalogue means that M occurs with an annulet in some position, while M indicates the initial with no annulets.

In checking a given coin against the varieties listed and illustrated, one should remember that it is the *design* of the various punches and the *design* of the die which is shown. To classify every die would have been impossible. But the design in use during a certain period can be analyzed, even though on any particular piece it may be distorted, partly off the flan, or worn.

In the case of a few varieties, such as D and D¹, broken punches used over a long period have been classified separately. The broken crown D¹ is somewhat later than D. Similarly, B¹ is really design B after it had become worn and partly broken. Although more than one size of a given punch design was used among the dies of various denominations, crowns A and B, for example, are denoted by design, regardless of size. Only when the large-sized A intended for the piece of two reales appears on the dies for the one real coins is it denoted A^x.

The Legends.

The legends furnish some information which helps to arrange the coins in the sequence of their minting.

1. The coins bearing CHAROLVS on the obverse surely were struck before those reading CAROLVS. This applies as well to the copper coins of four maravedies. The CH legends appear only on the G coinage, which was struck from 1542 through 1545 and later to some date at present unknown. The copper coins with the CH legends thus fall into the same period, although they carry no assayer's mark.

2. The legends which achieved word divisions by two annulets in pale were earlier than those using a single annulet. This change is the

more noticeable on the one real coins, where space on the die was limited. The change from two annulets to one occurred on the real coins during the G period while obverses 9 and 10 and reverse A were in use. All the legends of the one real coins of A, R, S, L, and O use only one annulet.

3. Some legends show a trefoil between words, and occasionally at the end of the legend, to fill space. It might be wondered whether this was an ordinary development or a detail added deliberately to denote a certain period. Had it been planned it could be a device used in 1545 to denote the tenth anniversary of the opening of the mint. It would hardly be strange for the mint officials, proud of their success in manufacturing a good coinage, to have exerted themselves to make very carefully the coins of the tenth year of operation. Actually, the M-G and G-M coins of this period are the best of the LATE SERIES. The visitation of the lic. Sandoval occurred in 1545, and the officials had over a year's notice that he would appear at the mint and examine the coinage. Possibly this had some bearing on the appearance of a series of which the dies were designed with some extra care. The trefoil appears only in the legends of the G series. It is also found on some of the coppers of four maravedies, notably on no. 9 of the Rumble collection, and no. 3 of the Boyd collection.

THIRD PUNCH DESIGN SERIES

ACDEGHILMNOPRSTV

1

PLVSTR

2



3



4



5



6



7



8



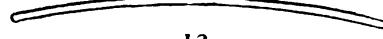
9



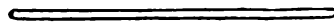
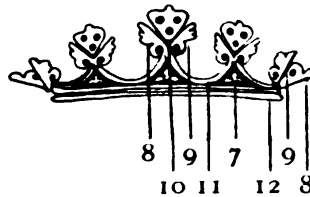
10



11



12



13



14



15



16



17



18



19

PUNCH DESIGNS FOR LATE SERIES

1. Letter punches (16) for legends. 2. Letter punches for reverse motto.
 3. Rondule for denomination indication. 4. Beads for circle. 5. Annulet.
 6. Cross potent for legend. 7. Jewel for base of crown. 8-10. Crown decorations.
 11. Connection for crown decorations. 12. Base of crown. 13. Top, sides, and center of shield. 14. Base of shield. 15. Pomegranate. 16. Waves.
 17. Castle. 18. Crown and capital for pillars. 19. Lion.

ENLARGED
TWO REALES LATE SERIES

M-A No. 57b

Showing use and placement of punches
in third series of punch designs





TWO REALES LATE SERIES
 TWO REALES EARLY SERIES
 (See p. 98 for bunch design numbers)
 (See p. 98 for bunch design numbers)



TWO REALES LATE SERIES

M-A No. 57b Obverse

(See p. 98 for punch design numbers)



TWO REELES LATE SERIES
SERIES REELES OMT
(See p. 98 for punch design numbers)
(See p. 98 for punch design numbers)



1. PIV | SVL | TRA
2. PIV | SVL | TR
3. PL | VS | VI
4. PL | V | S
5. P | LV | S
6. P | V | S
7. P | L | V
8. P | L | A
9. P | LA | S

REVERSE MOTTO VARIETIES OF THE
LATE SERIES

1., 2., and 3 on four reales, two reales, and one real pieces. 4-9 on half real pieces.

LATE SERIES

One Half Real

39



43



74



51



59



63



83



87



91



107



TABLE OF DESIGN VARIETIES
FOR LATE SERIES

In checking a given coin against the varieties listed and illustrated use of the tables of design varieties will be found to be necessary. In the table of design varieties for the obverses a tracing of a typical example is shown along with enlarged tracings of the crown, castle and lion appearing on it. The point or points of difference from the preceding variety are noted opposite variety number. In the column to the right are shown the varieties of reverse crowns found with the obverse design varieties shown on the same page. In the case of a few varieties such as D and D¹ broken punches used over a long period have been given a separate classification. The broken crown D¹ is somewhat later than D.

The two reales crown is somewhat larger than the one real crown, and when it occurs on coins of that denomination it is distinguished as A^x. The tables of reverse design varieties are to be found following those of the obverse within the individual denominations. They contain tracings of a specimen of each variety along with a reproduction of the form of the crown used on the two pillars.

One Real — Obverse



No. 1



Crown



No. 2



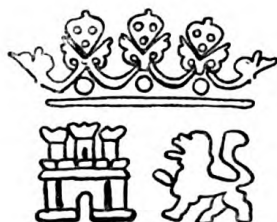
Crown



No. 3 No tongue in Lion



No. 4



Crown + Lion

REVERSE CROWNS



A



Ax



B



Bx

One Real — Obverse



No. 5 Crown

No. 5a No tongue on lion



No. 6 Crown



No. 7 Crown



No. 8 Crown

REVERSE CROWNS



A



Ax



Cr

One Real — Obverse

REVERSE CROWNS



No. 9 Shield



A



Ax



No. 10 Shield



C1



C2



No. 10a Tongue in lion



C



D



Nr. 11 Castle + No tongue in lion



D1



No. 12 Crown





No. 13

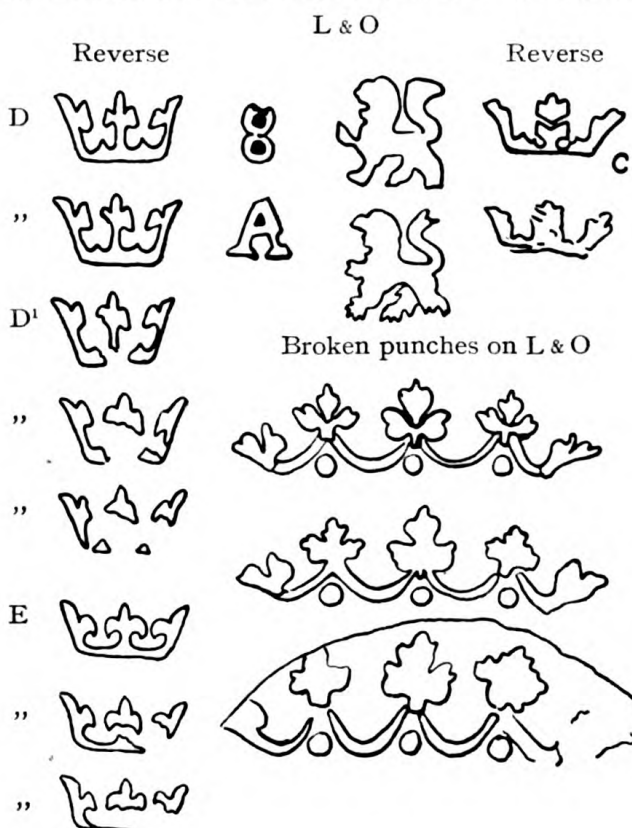


Castle + Lion

REVERSE CROWNS



CHARACTERISTIC BROKEN PUNCHES IN LATE SERIES



One Real — Reverse



A

on

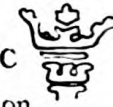
G & A

Coinage



C

on

R, S, L &
O Coinage

Ax

on

G

Coinage



C1

on

G, L & R
Coinage

B

on

G

Coinage



C2

on

R & L
Coinage

B1

on

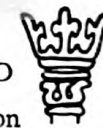
G

Coinage



D

on

L & O
Coinage

E

on

L & O

Coinage



Two Reales — Obverse



No. 14 Crown



REVERSE CROWNS



A



No. 15 Crown



A²



No. 16 No tongue in Lion



B



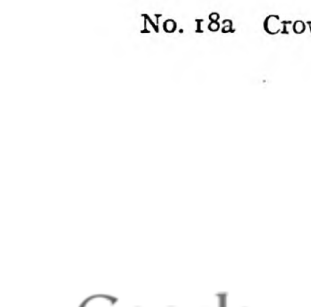
No. 17 Crown + Tongue in Lion



B¹



C¹



No. 18a Crown as 4R 18, but lion has no tongue



C²



No. 19 Crown



No. 20 No tongue in Lion



Details of worn or
broken punches as
usually found on
obverse 20.

REVERSE CROWNS



A



A2



C2



D

Two Reales — Reverse



A



A



B



C¹



B¹



A²



C²



E



Four Reales — Obverse



No. 14

Crown



REVERSE CROWNS



A



No. 15

Crown



B



B1



No. 16 No tongue in Lion



C1



C2



No. 18 Crown + tongue in Lion



F

REVERSE CROWNS



No. 19 Crown

No. 20 Design identical with two reales



D



No. 16 Broken-Punch
in L and O Series



E

Four Reales — Reverse



A



B



B1



C1





C²



D



E



F



LATE SERIES

TABLE OF OBVERSE LEGENDS

When found with *CHAROLVS* the legend number in the text is preceded by CH.

1. CAROLVS ☙ ET ☙ IOHANA•RG
- 1a. CAROLVS ☙ ET ☙ IOHANARG
- 1b. CAROLVS ☙ ET ☙ IOHANA8R
- 1c. CAROLVS ☙ ET ☙ IOHANA8RG ☙
2. CAROLVS8ET8IOHANA8REGES8
3. CAROLVS8ET8IOHANA8REGES°
4. CAROLVS8ET8IOHANA8REGES
5. CAROLVS8ET8IOHANA8REGS8
- 5a. CAROLVS8ET8IOHANA•REGS8
6. CAROLVS8ET8IOHANA8REGS°
7. CAROLVS8ET8IOHANA8REGS
8. CAROLVS8ET8IOHANA8REG
9. CAROLVS8ET8IOHANA•REGES°
10. CAROLVS8ET8IOHANA•REGES
11. CAROLVS8ET8IOHANA•REGS°
12. CAROLVS8ET8IOHANA•REGS
13. CAROLVS8ET8IOHANA•REG
14. CAROLVS8ET8IOHANA•RGS
15. CAROLVS8ET8IOHANA•RG
16. CAROLVS8ET8IOHANAREGES
- 16a. CAROLVS8ET8IOHANAREGES°
17. CAROLVS8ET8IOHANAREGS8
18. CAROLVS8ET8IOHANAREGS
19. CAROLVS8ET8IOHANARGES

20. CAROLVS8ET8IOHANARGS
21. CAROLVS8ET8IOHANARG
22. CAROLVS8ET•IOHANAREGES
23. CAROLVS•ET•IOHANA•REGES•
24. CAROLVS•ET•IOHANA•REGES
25. CAROLVS•ET•IOHANA•REGS•
26. CAROLVS•ET•IOHANA•REGS
27. CAROLVS•ET•IOHANA•REGE
28. CAROLVS•ET•IOHANA•REG
- 28a. CAROLVS•ET•IOHANA•REG•
29. CAROLVS•ET•IOHANAREGES
30. CAROLVS•ET•IOHANAREGS•
31. CAROLVS•ET•IOHANAREGS
32. CAROLVS•ET•IOHANAREG
33. CAROLVS•ET•IOHANARGES
34. CAROLVS•ET•IOHANARGS
35. CAROLVS•ET•IOHANARES
36. CAROLVS•ET•IOHANAGS
37. CAROLVS•ET•IOHANARS
38. CAROLVS•ET•IOHANREGES
39. CAROLVS•ET•IOHANA
40. CAROLVS•ET•IOHANA•R
41. CAROLVS•ET•IOHANAR
42. CAROLVS•ET•IOHANARG
43. CAROLVS•ET•IOANA•REGES
44. CAROLRVSS•ET•IOHANA
45. CAROLVSS•ET•IOHANA
46. CAROLVSET8IOHANAREGES

8•

LATE SERIES

TABLE OF REVERSE LEGENDS*

- a. ✠ HISPANIARVM8ET8INDIARVM
- b. ✠ HISPANIARVM8ET8INDIARVM◦
- c. ✠ HISPANIARVM8ET8INDIARVM8
- d. ✠ HISPANIARVM8ET8INDIARVM8◦
- e. ✠ HISPANIARVM8ET8INDIARVM8◦ ☙
- f. ✠ HISPANIARVM8ET8INDIARVM8 ☙8
- g. ✠ HISPANIARVM8ET8INDIARVM8 ☙
- h. ✠ HISPANIARVM8ET8IN8DIARVM8 ☙
- i. ✠ HISPANIARVM ☙ ET ☙ INDIARVM
- j. ✠ HISPANIARVM ☙ ET ☙ INDIARVM◦
- k. ✠ HISPANIARVM ☙ ET ☙ INDIARVM ☙
- k2. ✠ HISPANIARVM ☙ ET ☙ INDIARV
- l. ✠ HISPANIARVM8ET◦INDIARVM
- m. ✠ HISPANIARVM8ET◦INDIARVM◦
- n. ✠ HISPANIARVM8ET◦INDIARVM◦ ☙
- o. ✠ HISPANIARVM◦ET◦INDIARVM ☙
- p. ✠ HISPANIARVM 8 ET 8 INDIARVM ☙
- p2. ✠ HISPANIARVM8ET8INDIARVM◦ ☙
- q. ✠ HISPANIARVM8ET8INDIAR◦
- r. ✠ HISPANIARVM8ET8INDIARV
- r2. ✠ HISPANIARVM8ET8INDIARV◦
- s. ✠ HISPANIARVM◦ET◦INDIARV
- t. ✠ HISPANIARVM◦ET◦INDIARV◦

* On half real pieces, inscriptions often have the center trefoil of the crown substituted for the initial cross.

- u. ♣ HISPANIARVM•ET•INDIARVM8 °
- u2. ♣ HISPANIARVM8INDIARVM8 ° (ET8omitted)
- v. ♣ HISPANIARVM•ET•INDIAR
- w. ♣ HISPANIARVM•ET•INDIAR°
- x. ♣ HISPANIARVM•ET•INDIA
- y. ♣ HISPANIARVM•ET•INDIA°
- z. ♣ HISPANIARVM•ET•INDI
- z2. ♣ HISPANIARVM•ET•INDI°
- z3. ♣ HISPANIARVM•ET•IND
- z4. ♣ HISPANIARVM•ET•IN
- z5. ♣ HISPANIARVM•ET•IN°
- z6. ♣ HISPANIARVM8ET8INDIA
- z7. ♣ HISPANIARVM•ET•IND°
- z8. ♣ HISPANIARVM8ET8INDIA8
- aa. ♣ HISPANIARVM•ET•INDIARVM
- bb. ♣ HISPANIARVM•ET•INDIARVM°
- bb2. ♣ HISPANIARVM•INDIARVM° (ET°omitted)
- x1. ♣ HISPANIARVM•ET•INDIARM°
- x2. ♣ HISPNIARVM•ET•INDIARVM
- x3. ♣ HISPANIARVM•ET•INDIARM
- x4. ♣ HISPANIARVM8ET8INDIARM
- x5. ♣ HISPANIARVM•ET•INDIRM
- x6. ♣ HISPANIARVM•ET•ENDIARVM
- x7. ♣ HISPANIARVM•ET•INDIAM
- x8. ♣ HISPANIARVM•ET•INDIRVM
- x9. ♣ HISPANIARVM•ET•NDIARVM
- x10. ♣ ISPANIARVM•ET•INDIARVM

CATALOGUE OF LATE SERIES COINS


$$\overset{\circ}{\underset{\circ}{M}} - \overset{\circ}{\underset{\circ}{G}}$$

No.	Denom.	Obv. Design	Rev. Des.	Obv. Legend	Rev. Legend	Copies Seen
31	½ R	Unknown				
32	1 R	I	A	CH ₄ , CH ₇	a, c	4
32a		I	A ^x	CH ₇ , CH ₁₁	c	2
33	2 R	14	A	CH ₁₂	b	2
34	4 R	14	A	CH ₁₀	b	2



$$\overset{\circ}{\underset{\circ}{M}} - \overset{\circ}{\underset{\circ}{G}}$$

35	½ R	Unknown				
36	1 R	2	A	CH ₇ , CH ₁₂	b	9
36a		2	A	CH ₁₂	b PLV SVL TR	2
36b		4	Bl	CH ₇ , CH ₈	a	2
37	2 R	Unknown				
38	4 R	Unknown				

$$G - \overset{\circ}{\underset{\circ}{M}}$$


39	½ R		P LV S	26, 28	y, z ⁸	3
40	1 R	Unknown				
41	2 R	15	A	12, 13	c, d, m, n, aa	6
41a		16	A	16, 22	b, c	2
42	4 R	Unknown				

$$G - M$$

43	½ R		P LV S	CH ₂₄	s	1
43a			PL V S	11	y	1
43b			PL V S	31	z ⁶	1



No.	Denom.	Obv. Design	Rev. Des.	Obv. Leg.	Rev. Leg.	Copies Seen
44	1 R	2	A	CH8	b, c, p.	5
44a		2	A ^x	CH8	a, c	5
44b		3	A	26	a	1
44c		6	A	11, 12	a, c, m	5
44d		6	CI	11	a	1
44e		8	CI	11	a	2
44f		9	A	10, 24	a, b, aa, bb	13
44g		10	CI	12	b	2
44h		10	A ^x	10, 12, 26	b, m, u2, bb, bb2	16
45	2 R	15	A	10	b	1
45a		16	A	9, 24	p2, bb	2
45b		17	A	10	b, c	2
45c		18a	A	10	c	1
45d		19	A	10	b	7
46	4 R	15	A	9, 10	b, c, d, p	6
46a		15	B	10	b	1
46b		15	F	10	h	1
46c		16	A	9	b	1
46d		16	CI	9	d	1
46e		18	A	10	b	1

M-G

47	1/2 R		PL V S	CH24, 28a	v, x	2
47a			P LV S	CH43, 43	s, aa	3
48	1 R	3	A	CH16, CH18	a, b, p	7
48a		3	A ^x	CH7	c	1
48b		3	A ^x	CH7	a PLV SVL TRA	4
48c		3	BI	CH7	a	2
48d		3	A	16, 18, 21	a, b, c, k2	8
48e		5	A	1b, 12, 14	a, i	10
48f		5a	A	15	a	1
48g		7	A	4, 12, 16, 18	b, c, m	8
48h		8	A	16	a	3
48i		9	A	10, 24, 25, 26	a, b, c, aa, bb	29
48j		10	A	11, 12, 18, 21, 25, 26	a, b, c, m, aa, bb	26
48k		10a	A	12, 14	a	4
49	2 R	15	A	CH9, CH10, CH11, CH12, CH13, CH18	a, b, g, p	6
49a		15	BI	CH6, CH7, CH12	a	3

No.	Denom.	Obv. Design	Rev. Des.	Obv. Legend	Rev. Legend	Copies Seen
49b		16	A	13	b, p	2
49c		17	A	10	b	1
49d		19	A	1a, 5a, 10, 16	b, j	6
49e		20	A	10	a, b	4
50	4 R	15	A	CH4	c	2
50a		16	B	CH4	c	1
50b		15	B ^I	CH4	c	2
50c		15	A	9, 10, 16	a, c	3
50d		15	C ^I	10, 16	b, c	3
50e		16	A	4, 10, 16	b, c	3
50f		19	A	CH4, 1a, 1c, 7, 9	f, i, j, k, p ^a	5
50g		19	F	16	e	1

M-G


51	1/2 R		P LV S	CH12	s	3
51a			P LV S	12, 26, 31	v, w, x, y	5
51b			PL V S	18, 26, 31, 32	v, x, y	9
52	1 R	4	A ^x	CH8	a PLV SVL TRA	1
52a		4	B	CH7, CH8	a	4
52b		4	B	CH8	a PL VS: VL	5
52c		4	B ^I	CH7, CH8	b	4
53	2 R	15	B	CH10, CH17	c	2
53a		15	A	10	c	1
53b		15	B	16	c	1
53c		16	A	16	a	1
54	4 R	15	B ^I	CH4	b	1
54a		15	A	3	d	1

M-A


55	1/2 R	Unknown				
56	1 R	9	A	24, 26, 29	aa, bb	4
56a		10	A ^x	24, 29	aa, bb	10
57	2 R	15	A	24, 26	bb	2
57a		15	C2	24	bb	1
57b		16	A	26	bb, u	9
58	4 R	16	C2	24	b	1

No.	Denom.	Obv. Design	Rev. Des.	Obv. Legend	Rev. Legend	Copies Seen
-----	--------	----------------	--------------	-------------	-------------	----------------

A—M (or A— $\overset{\circ}{M}$ $\frac{1}{2}$ R)

59	$\frac{1}{2}$ R		PL VS VL	26	v	V.Q.R.
59a			P LV S	26	v	2
59b			PL V S	26	v	3
60	1 R	Unknown				
61	2 R	16	A	24	bb	1
61a		16	C2	24	bb	1
62	4 R	16	A	24	a	1
62a		16	C2	23	b, bb	2

 $\overset{\circ}{M}$ —A

63	$\frac{1}{2}$ R		PL V S	v (sic!)	v	2
63a			P LV S	v (sic!)	v	2
64	1 R	10	A	26	aa	2
65	2 R	Unknown				
66	4 R	Unknown				

M—R

67	$\frac{1}{2}$ R	Unknown				
68	1 R	10	C1	26	bb	1
68a		10	C2	26, 31	bb	4
68b		10	C	26	bb	2
69	2 R	20	C2	26	bb	VQR no. 6910
70	4 R	Unknown				

R—M

71	$\frac{1}{2}$ R	Unknown				
72	1 R	10	C2	26	aa, bb	4
73	2 R	19	A	26	aa	2
74	4 R	16	C1	24	l, aa, bb	4

No.	Denom.	Obv. Des.	Rev. Des.	Obv. Legend	Rev. Legend	Copies Seen
-----	--------	--------------	--------------	-------------	-------------	----------------


M-S (or $\overset{\circ}{M}$ -S)

75	$\frac{1}{2}$ R	Unknown				
76	1 R	12	C	26, 29, 31	aa, bb, bb2	10
77	2 R	20	A2	29	bb	1


This coin is the only example noted of the $\overset{\circ}{M}$ -S series. ANS.

78	4 R	16	E	12	b	1
----	-----	----	---	----	---	---

L-M





79	$\frac{1}{2}$ R		P LV S	26	v	1
79a		"	PL V S	26	v	1
80	1 R	10	CI	24, 26	aa, bb	9
80a		10	C2	24, 26, 31	aa, bb	9
80a is misnumbered as 84a on PLATE VII.						
80b		10	C	24, 26, 28, 32	a, aa, bb	114
80c		11	C	24, 26, 28, 31, 32, 35	aa, bb	88
80d		12	C	23, 24, 26, 31	aa	9
80e	L O	12	D	26	aa	3
81	2 R	16	A	26	b	2
81a		20	A2	4, 23, 24, 25, 26, 29, 30, 31	u, aa, bb	42
81b		16	CI	26	a	1
82	4 R	16	E	7, 9, 10, 12, 24, 26	a, b, c, d, aa, bb	18
82a		16	CI	24	b	1

M-L

83	$\frac{1}{2}$ R		P LV S	26	v, x	12
84	1 R	10	A ^x	24	aa	1
84a		10	CI	24, 26, 29	aa, bb	33
84b		10	C2	24, 26	aa	4
84c		10	C	24, 26, 27, 29	aa, bb, o, x9, x10	136
84d		11	C	24, 26, 31, 32	aa, bb	85
84e		12	C	26, 31	aa, bb	6
84f		12	D	26	aa	3

No.	Demon.	Obv. Design	Rev. Des.	Obv. Legend	Rev. Legend	Copies Seen
85	2 R	16	A2	24, 26	aa, bb	6
85a		16	CI	24, 26	b, bb	5
85b		20	A2	24, 25, 26	aa, bb	28
86	4 R	16	CI	10, 24	b, l, aa, bb	4
86a		16	E	4, 12, 18, 23, 24	a, b, c, aa, bb	11

M-L




87	1 2 R		P LV S	26	v, x	4
87a			PL V S	26	v	2
87b			P LV S	24, 26, 28, 31	v, w, y	7
87c			PL V S	28	v	3
87d			P LV S	26	v, y	3
87e			PL V S	26, 31	x, y	3
87f			P LV S	26	v	2
88	1 R	12	C	24, 26	aa, bb	12
88a		12	D	24, 26, 29	aa, bb	47
88b L O		12	D	24, 28, 29	aa	10
88c		12	DI	24, 26, 29, 31	aa, bb, x1, x3	67
88d		13	DI	29, 32	aa	4
88e L O		13	E	31	x3	1
88f		13	E	34, 36	aa, x3	9

It is possible that some examples of nos. 88b, d, and e are included under other portions of no. 88, the original O having been completely obliterated. On certain pieces something seems to be visible under the L, but it is only conjectural that the die originally carried an O.

89	2 R	16	A2	7, 24	a, c, aa	4
89a	M̂ L-L M	20	A2	6	a	1
89b	M̂ M-L O	20	A2	16	a	2
89c		20	A2	4, 16, 18, 24, 26	a, b, aa, bb	19
90	4 R	16	E	3, 4, 7, 12, 16, 24, 25	a, b, c	18

No.	Denom.	Obv. Design	Rev. Des.	Obv. Legend	Rev. Legend	Copies Seen
-----	--------	----------------	--------------	-------------	-------------	----------------

L-M

91	1/2 R		P LV S	3I	v	9
91a			PL V S	3I	y	1
91b			P LV S	3I	v	1
91c			P LV S	40(?)	x(?)	1
92	1 R	12	C	24, 26	aa, bb	13
92a		12	D	24, 25, 26, 29, 31	aa, bb	42
92b	L O	12	D & DI	24, 26, 29	aa, x3	9
92c		12	DI	24, 25, 26, 29, 31	aa, bb	71
92d		13	DI	31	aa, bb	5

Crowns D and DI are identical in design, the latter however showing punch breaks and consequently dating later. About 10% of this series could not be classified as to legend, since it was off flan or illegible.

93	2 R	20	A2	4, 7, 16, 24	a, c	10
93a	L M-M L	20	A2	16	a	1
93b	L O-M M	20	A2	16(?)	a	1
94	L O	16	E	3, 4, 7, 10, 16, 24	a, c, aa	20

On one example of 94 the motto reads PLV|LVS|TR

94a	4 R	16	E	16	a	2
94b		20	E	4	a	1

O-M


95	1/2 R	Unknown				
96	1 R	12	C	24(?)	aa	1
96a	O M-M L	12	D	26	aa	7
97	2 R	20	A2	24	aa	1
98	4 R	Unknown				

No.	Demon.	Obv. Design	Rev. Des.	Obv. Legend	Rev. Legend	Copies Seen
-----	--------	----------------	--------------	-------------	-------------	----------------



M—O




99	1/2 R	Unknown				
100	1 R	12	C	28	aa, bb	6
100a		12	D	26	bb	1
100b		13	E	33, 34	x3	4
101	2 R	20	A2	7, 24	a, x6	3
102	4 R	Unknown				

O— $\overset{\circ}{M}$

103	1/2 R		P LV S	26, 29	v	2
104	1 R	12	C	24	aa	1
104a		12	D	24, 26	aa	13
104b	O L	12	D & DI	24, 29	aa, bb	16
104c		12	DI	24, 26, 29, 31	aa, bb, x2	35
104d		13	DI	29, 31	aa, bb	14
104e		13	E	31	aa, bb	12
105	2 R	20	A2	16, 23, 24, 31	a, aa	6
105a	O L	20	E	24	aa(?)	1
105b		20	E	24	aa	1
106	4 R	16	E	16, 18, 20	a, b, c	17

 $\overset{\circ}{M}$ —O

107	1/2 R		P LV S	34, 37	v, z, z ²	5
107a		„	P LA S	31	z	3
107b		„	P L V	39	z ³	2
107c		„	P V S	40	z ³	1
107d			P LV S	37, 42	v, z, z ⁵	5
107e		„	P V S	41	z, z ⁵	2

No.	Denom	Obv. Design	Rev. Des.	Obv. Legend	Rev. Legend	Copies Seen
107f			P V S	39, 41, 44	z, z ³ , z ⁴ , z ⁷	7
107g		„	P L V	39, 44	z, z ³	5
107h		„	P L A	39	z	1
107i		„	P L S	44	z	1
107j			P LV S	26	v	1
107k			P L V	45	z ³	2
107l		„	P L A	39	z	3
107m		„	P L S	45 ?	z ³	3
108	1 R	12	D	24, 26, 29	aa	7
108a	O L	12	D & DI	24, 26, 29	aa	4
108b		12	DI	24, 26, 29, 31	aa, bb, x6	67
108c		13	D & DI	29, 31, 34, 38	aa, bb	56
108d		13	E	28, 29, 30, 31, 32, 33, 34, 35, 36	aa, bb, x3, x7, x8	295

Of 108c, one example read CAROVS, a die error; one omitted °ET in rev. legend; and two showed motto PL|VS|V. Of 108d, one example read IOHANAEVS, another, CAROHLRVS°ET° IOHANARGS. Nearly 300 of no. 108 came from one hoard found in 1951.

109	2 R	20	A2	16, 18	a, b, c	14
109a		20	E	18, 24	a, c, bb, x4	21
110		16	E	4, 16, 18, 19, 20, 46	a, b, c, x4	343

Of 110, one example read CAROLS; six omitted 8 reading CAROLVS ET8; twelve read CARLVS; and one reverse read INDIAM. Two hundred seventy-five examples were found in one hoard in 1954, and were loaned to the author for study and classification.

110a	O L	16	E	10, 16	a	2
110b	4 R	16	.D	18, 20	a, c	5

THE COPPER COINAGE

The scarce EARLY SERIES copper was undoubtedly struck only in 1542, when the viceroy Mendoza first ordered its production. So few pieces are known that there must have been an alteration almost immediately to the third punch design series the design of most of the pieces known today. No pieces of 2 maravedíes of the EARLY SERIES were discovered.

The copper known to us is so badly preserved that even to consider cataloguing it is presumptuous. Of the 67 pieces examined, on only 38 could as much as the obverse and reverse varieties be recognized. The legends are even more difficult to read. Although the catalogue is a presentation of the legible copper seen, it must not be presumed that it begins to cover all possibilities. Thus obverse 3 certainly occurs with reverse H or I, but the condition of the coins prevents absolute identification and inclusion in the catalogue. Not only can new combinations of obverse and reverse be found, but perhaps even new die varieties await discovery.

The variety of obverse and reverse die combinations demonstrates that a number of dies were in use at one time and were paired capriciously. Thus no. 2a, a combination of dies 2 and I, carries no mintmark, while no. 5a shows no mark of denomination.

Within the EARLY and LATE SERIES all pieces are catalogued together, since no assayers' marks appear.

The earliest Spanish copper coinage used in Mexico was probably the so-called Santo Domingo issue. It was of a type utterly distinct from that coined in Mexico, as is clear from the accompanying illustration:



TWO MARAVEDÍES

Late series



1a.

Banco de México, S.A.

CHAROLVS on reverse, pomegranate below. M to left of pillar. Another example in Anderson coll.



1b.

Dr. A. F. Pradeau coll.

Probably CHAROLVS. M to right of pillar. Another in Delgado coll.



2a.

Busser coll.

HISPANIARVM ☉ ET ☉ INDIARVM on both faces. No pomegranate.



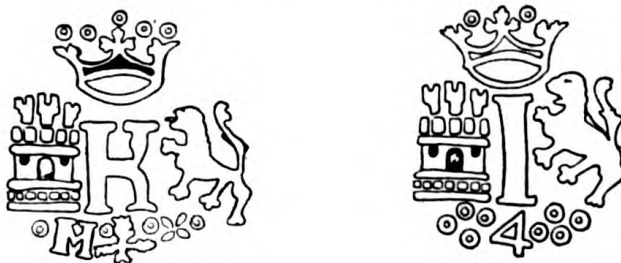
2b.

O. K. Rumbel coll. (2 examples)

As 2a. Evidently No M's at sides of castle, although area is worn.

FOUR MARAVEDÍES


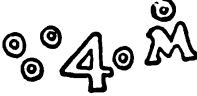









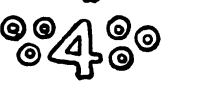










Early series type



Late series type



DIE VARIETIES

	Obverse	Reverse	
I			AA
2			A
3			B
4			C
5			D
6			E
7			F
8			G
9			H
IO			I
II			J

OBVERSE LEGENDS

1. KAROLVS ET IOHANA REGES
2. CAROLVS ET IOHANA REGS
3. CAROLVS ET IOHANA REGS
4. CAROLVS ET IOHANA REGES
5. CAROLVS ET IOHANA REGES
6. CAROLVS ET IOHANA REGES
7. CAROLVS ET IOHANA REGES
8. CAROLVS ET IOHANAREGES
9. CAROLVS ET IOHANNA REGES
10. CAROLVS ET IOHANNA REGES
11. CAROLVS ET IOHANNA REGES
12. CAROLVS ET IOHANNA REGES
13. CHAROLVS ET IOHANA REGES
14. CHAROLVS ET IOHANA REGES
15. CHAROLVS ET IOHANA REGES
16. CHAROLVS ET IOHANA REGES
17. CHAROLVS ET IOHANA REGES
18. CHAROLVS ET IOHANNA REGES
19. CHAROLVS ET IOHANNA REGES
20. CHAROLVS ET IOHANNA REGES

REVERSE LEGENDS

- a. HISPANIARVM ET INDIARVM
- b. HISPANIARVM ET INDIARV
- c. HISPANIARVM ET INDIARVM
- d. HISPANIARVM ET INDIARVM
- e. HISPANIARVM ET INDIARVM
- f. HISPANIARVM ET INDIARVM

Several of the above legends have not been noted in full, but that they exist is inferred from portions of legends on worn coins.

10

CATALOGUE OF FOUR MARAVEDIES

Early Series



ANS, 26 mm, 85.9 grms.

PLATE XII, I

The first type, using punch design series no. 2. Obverse type is that limited to this series, reverse is no. G. Obverse legend 1, reverse legend b. Only two copies were found, the second in the F. C. C. Boyd coll.

Late series



1. Dr. A. F. Pradeau coll.

No.	Obv.Des.	Rev.Des.	Obv.Leg.	Rev.Leg.	Copies
1	1	G	15, ?	?	3
1a	1	J	?	?	1
2	2	A	3, ?	d, e, ?	2
2a	2	I	3	d, e	3
3	3	A	?	e	1
4	4	A	7, ?	d, e	2
4a	4	H	?	e	1
5	5	I	5	e, ?	2



5a O. K. Rumbel coll.

No.	Obv.Des.	Rev.Des.	Obv.Leg.	Rev.Leg.	Copies
5a	5	J	5, 7, ?	d, ?	3
6	6	A	12, 19	f	2
6a	6	B	19	e	1
6b	6	C	?	e	1
7	7	A	?	e	1



7a. F. C. C. Boyd coll.

7a	7	B	5, ?	e, ?	3
7b	7	E	18	d	1
7c	7	F	?	e	1
7d	7	H	?	?	1
8	8	B	7, ?	c, f	2



9a. F. C. C. Boyd coll.

No.	Obv.Des.	Rev.Des.	Obv.Leg.	Rev.Leg.	Copies
9	9	AA	?	C	1
9a	9	B	7	e	1
9b	9	H	5	e	1



10. F. C. C. Boyd coll.

10	10	A	7, 16, 20	d, ?	3
11	11	B	18	e	1
11a	11	D	?	e	1

APPENDIX

ROYAL DECREE ESTABLISHING THE MINT OF MEXICO — MAY 11, 1535¹

THE QUEEN. — Don Antonio de Mendoza, our Viceroy and Governor of New Spain and President of our Court and Royal Chancery which resides there. You already know that in one of the chapters of the book of laws which the Emperor and King, my lord, commanded given to you for the good government of the republic of that province, he ordered you to coin money of silver and copper,² and in doing so to observe the order which was given you by those of our Council of the Indies, who, with the concurrence and opinion of officials of some Mints of our kingdoms, ordered that in the coining of the said money of silver and copper and in the duties of the said officials of the Mints of said New Spain, the following order be observed in as much as it is our pleasure and will.

First, you will observe in the making of the said money of silver and copper the regulations of the Mints of these kingdoms which have been ordered in respect thereto by the Catholic Rulers don Fernando and Doña Isabel, our parents and grandparents, for at present no money is to be made of gold.

And in regard to the second chapter of the book of said laws and ordinances there is set forth the pattern which the said money of silver which may thus be made is to have, half of it to be single real pieces, and a fourth part two and three reales pieces, and the other fourth part, half and quarter real pieces; and the die for the single real pieces

¹ Translated from the Spanish of Medina, *Monedas coloniales hispano-americanas*, pp. 54-57.

² *Vellón* is regularly translated as "copper" although it was in reality an alloy of copper and silver.

and the two and three reales pieces is to be on one side castles and lions with the pomegranate, and on the other side the two columns, and between them an inscription as follows: *PLVS VLTRA*, which is the device of the Emperor, my lord; and the half real pieces are to have on one side a "K" and an "I," and on the other side the said device of the columns, with the said inscription, *PLVS VLTRA*, between them; and the quarter real pieces shall have on one side an "I," on the other a "K,"³ and the legend of all the said silver money shall be *CAROLVS ET JOANA. REGES HISPANIE ET INDIARVM*, or what can be included of this, and there shall be placed on the side where the device of the two columns may be a Latin M, so that it may be known that it was made in Mexico.

Furthermore, inasmuch as it is prohibited by a chapter of the said ordinances that money can be exported from our kingdom, we permit and approve that the silver and copper money which may thus be made in said New Spain may be exported from it to our kingdoms of Castile and Leon and for all our Indies, islands and land of the Atlantic Ocean, in order that it may be current and valid within them for its true value, which is thirty-four maravedies each real, and the other pieces of silver accordingly; and if they are produced and made in other places, the penalties of our laws and ordinances shall be incurred.

Furthermore, inasmuch as from all the gold and silver which is mined and obtained as ransom or booty or in any other manner, there must be paid to us a payment of one-fifth to the officials of our Smelter in New Spain, and it is necessary to mark with our mark to show that the said fifth has been paid, we command that there be no silver received in the said Mint to be coined unless it has first been marked with our royal mark, which shall show that a fifth of it is paid to our said officials, under penalty of death to persons who in any other way receive or coin the said silver, and all their wealth shall be turned over to our Treasury; and the owners of the said silver shall

³ C. Pérez Bustamante's reading, which is correct as can be seen from the coins.

have lost it and two-thirds of it shall be turned over to our Treasury and the other third to him who reported it; such owners of silver may incur this penalty only by having presented it to the Mint, even though it be not coined nor the officials thereof not wish to coin it.

Furthermore, we order and command that the President and members of our court which resides in the city of Mexico and our other common justices may try any case of counterfeiting which is committed by the said coiners, although it may be committed in the said Mint, and may remove to their jurisdiction such a case, even though the justices of the said Mint may have prepared and commenced trial.

Furthermore, inasmuch as by another of said ordinances it is commanded that if the officials and coiners of the said Mint be brought to trial in civil cases, that the justices of said Mint may try them and no other justices; we declare that this is not understood in respect to that which concerns the tax of one fifth, land taxes, other taxes, and whatever else is owed by them to us and to our officials in our name; for in all these matters we desire and command that any of our justices may bring trial in their towns and jurisdiction as they could try a case if they were not officials of the said Mint.

Furthermore, we command that the residence which, in conformance with the said laws and ordinances must be taken by the justices and officials and other persons of the said Mint, shall be taken by the person whom our Viceroy and Governor of said land may name and signify and by no other.

Likewise, we command that insofar as regards the frank and exemption from land taxes and moneys and other things from which the coiners are exempt in conformance with the laws of our kingdom, it be understood that, save for sales taxes, the tax of one fifth, duties on imports and exports, and other tributes that we may impose with the allotment of territory or land that we may give them, in the same manner as other residents are accustomed to pay and must pay, the persons to whom territory may be allotted or an estate given must pay.

Furthermore, inasmuch as according to the order of one of the said ordinances, from each mark of silver which is to be coined there must be produced 67 reales, of which reales one is retained in the said Mint for all our officials thereof, and if this only may be retained in the Mint of the said New Spain, heedful that its expenditures are much larger than in these kingdoms, our said officials would not wish nor could willingly coin the said silver because of not having suitable recompense; therefore, we order and command as if it were our pleasure and will and until better informed we provide what is suitable for our benefit and the good of the Republic of New Spain, that the said officials who now and henceforth may be in the said Mint may produce and take from each mark of silver that is thus coined three reales, instead of one real which can be made and taken from each mark of silver in the Mints of these kingdoms of Castile; which three reales shall be apportioned by our Treasurer and the other officials of the said Mint just as and in the way and manner which is apportioned the said real by the said laws and ordinances of the said Mint.

Furthermore, in regard to the copper money, we charge and command you, upon having learned the opinion of some officials who have information about the design and coinage of the said copper, and you being a person who likewise has had experience in this matter, having been our Treasurer of the Mint of Granada, to order in our name the design and metal of the said copper coins, and to have it minted, and to send a report on it to our Council of the Indies; and the duty which our Treasurer and the other officials of our said Mint must levy for the making of said money must be likewise three times that which the officials who coin copper money in these kingdoms levy.

And because for the coining of the said money of silver and copper it is necessary that there be a suitable Mint, I command and order you to see whether in our Court Buildings in the City of Mexico there is a suitable place and equipment to make the said money with the precaution and security that is fitting, and, if in the said buildings there be such suitable place, you shall determine the place for rooms, enclosures, and flooring that may be necessary, and there not being

a suitable place in the said Court buildings for that purpose, nor in the Smelter, you will choose another site, which seems to you most suitable, and on it you will build at our expense a building that will be appropriate, and you will provide that the Indians whom you deem necessary to help with it receive suitable recompense.

And because by reason of some of the said laws and ordinances of these kingdoms, made by the Mints therein, it is ordered that a report be sent to our senior cashiers about those who are excused, coiners, and exempt, etc.; and because those of our Indies Council are wise in the administration of justice as well as in things relating to our estate, we command that all reports which used to be sent to the said senior cashiers, in conformance with the said laws, shall be sent to those of our Council of the Indies who reside in our court so that I may demand to see them and provide what is suitable for our benefit.

Therefore, we command, that with that fidelity and care which we trust in you and which you are accustomed to exercise in other matters in our service and which the office requires, that you, observing the order contained above, shall make the said money of silver and copper and for that purpose you shall name the officials it is customary to have in the other Mints, so that, together with the person who may have the power of the said Treasurer of the said Mint, you shall use the said functions in conformance with the laws and ordinances of the Mints of our kingdoms and in conformance with this order; and you shall have sent to us a report of the officials which you thus name and of their qualifications and abilities so that, upon seeing it (the report), I may make provision for the work as best suits our needs. Signed in the city of Madrid, the 11th of May, 1535. I THE QUEEN. By order of His Majesty.

A.G.I. 96-6-12

PLATES

I



EARLY SERIES R



EARLY SERIES
R (5d-6d) — G (8-11)

III



EARLY SERIES F (13-16)
P-M (19-20) — M-P (22-23b)



EARLY SERIES M-P

v



39



43



43b



51



59b



63



83



87



91c



107d



107f



107j



LATE SERIES — HALF REAL



LATE SERIES — ONE REAL

VII



LATE SERIES — ONE REAL



LATE SERIES — TWO REALES

IX



LATE SERIES — TWO REALES



46b



50f



54



58



62a



74



LATE SERIES — FOUR REALES

XI



78



82



86



86a



94



110



LATE SERIES — FOUR REALES



COPPER MARAVEDIES



COUNTERFEITS

14 DAY USE
RETURN TO DESK FROM WHICH BORROWED
LOAN DEPT.

This book is due on the last date stamped below, or
 on the date to which renewed.
 Renewed books are subject to immediate recall.

20 Nov '57 MF	REC'D LD
REC'D LD	JUN 15 '65 - 5 PM
REC'D LD	FEB 22 1968
REC'D LD	FEB 15 1968
'6 Mar '58 JZ	FEB 26 1969 1 30
REC'D LD	FEB 12 1969
APR 25 1958	IN STACKS
30 Mar '63 TD	RECEIVED
REC'D LD	APR 10 '69 - 11 AM
MAR 30 1963	LOAN DEPT.
5 Aug '64 B	AUG 31 1971 4 9
REC'D LD	MAY 3 '72 - 3 PM 8
LD 21A-50m-8, '57 (C8481s10)476B	General Library University of California Berkeley